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The



CHEMIST AND DRUGGIST

Established 1859

28 Essex Street, Strand, London, W.C.2

Registered as a Newspaper

No. 2810
VOL. CXIX.

DECEMBER 16, 1933

Annual Subscription (with
Diary) 20/- Single Copies 9d.

CHEMISTS' INFORMATION SERVICE

INDEX Addendum

H HALMAGON—One of the most recent and important biological discoveries of modern science. Packed in cartons of 4 glass tubes containing one month's daily ration of tablets for Chemist or Customer.

INDEX Addendum

M MORNING GLORY—A popular synonym for HALMAGON, interpreting the experience of those who use the tablets as a daily early morning ration, when they find themselves lords of their minds and bodies—that glorious sense of well-being when they walk with springing steps; when every nerve is fully functioning, when their muscles rejoice in the resilience of health and their whole being tingles with energy.

INDEX Addendum

T TONICITY—(1) The prime attribute of HALMAGON, which, by its radical action on vital processes, restores tone to the system and powerfully contributes towards the establishment of an equilibrium of metabolism—that condition which alone ensures perfect health, youthful arteries and longevity. (2) The name of the Laboratories marketing HALMAGON. (3) A condition of normal, healthy tone of all organs of the body, in contra-distinction to a state of laxity and ill-health; see also synergism.

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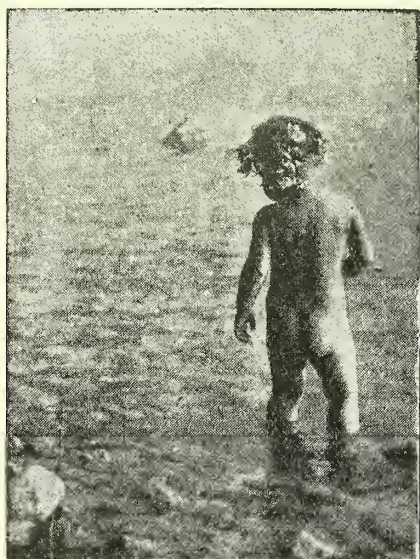
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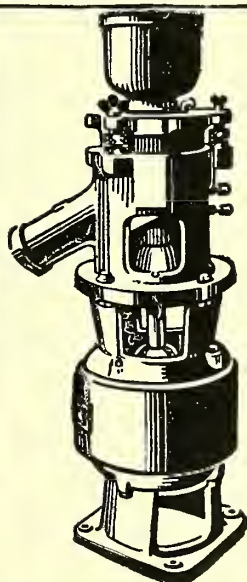
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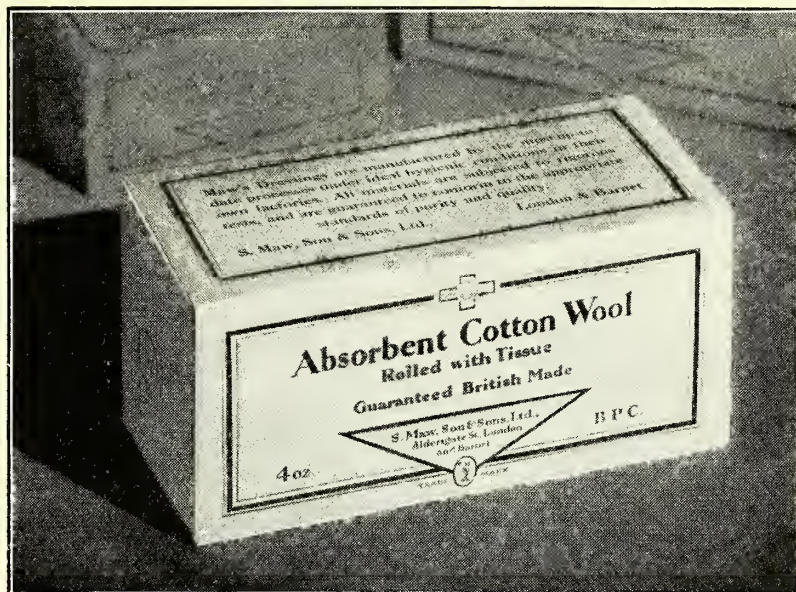


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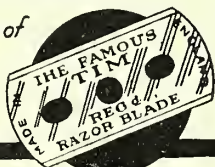
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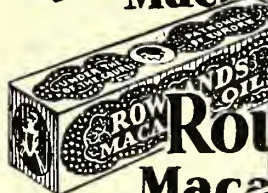
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abroad

the

Compliments

of the

Season

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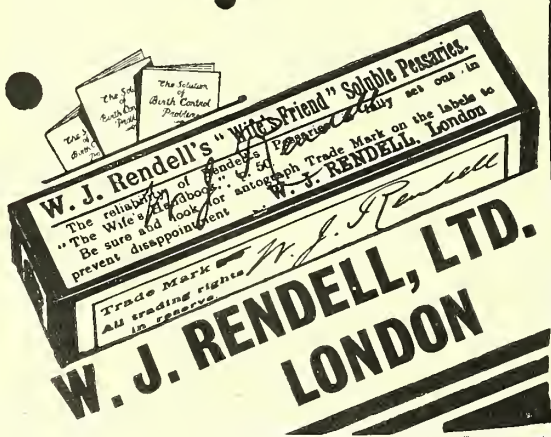
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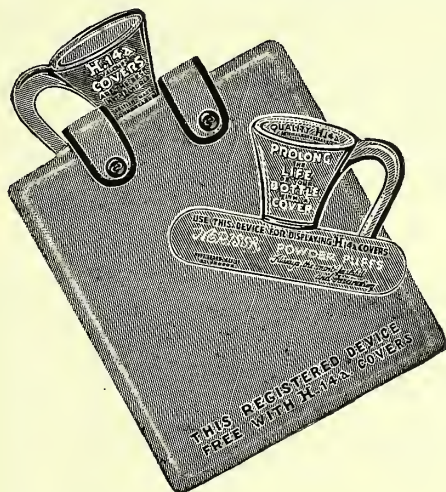
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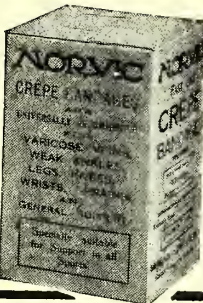
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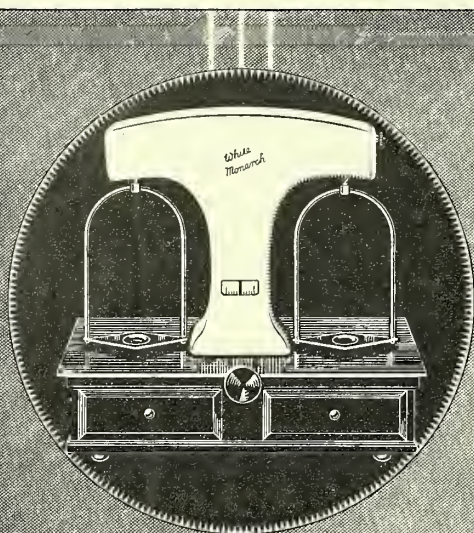
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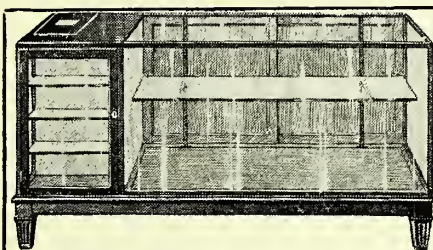
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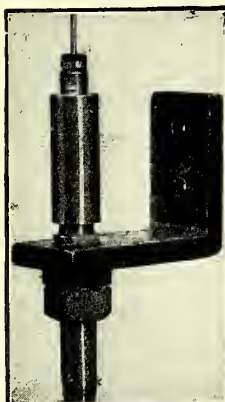
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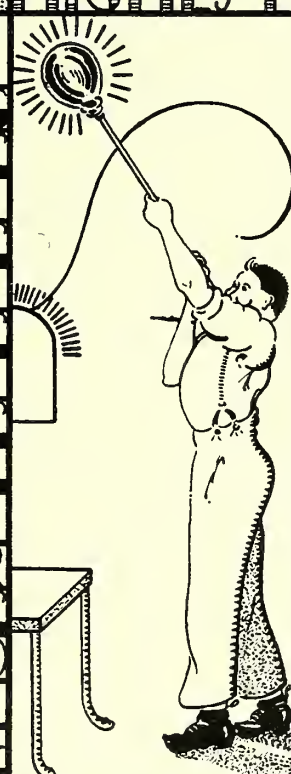
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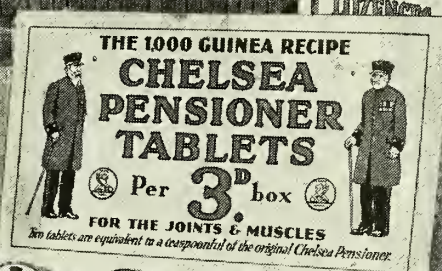
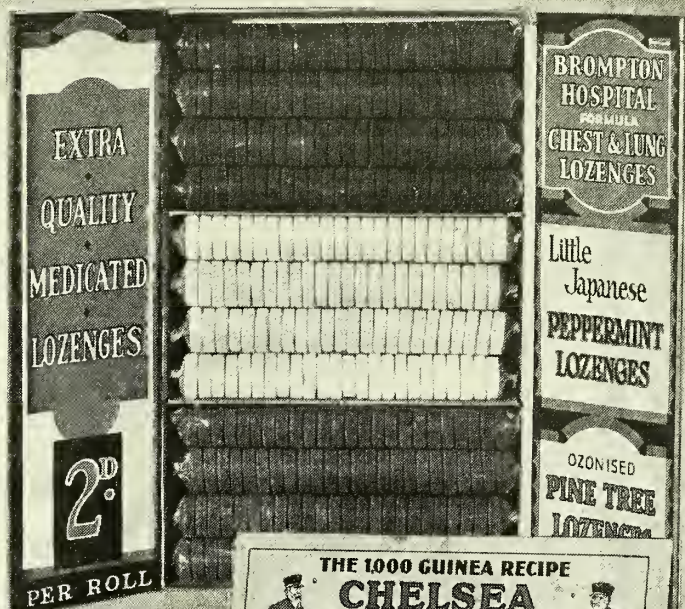
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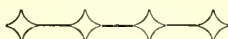
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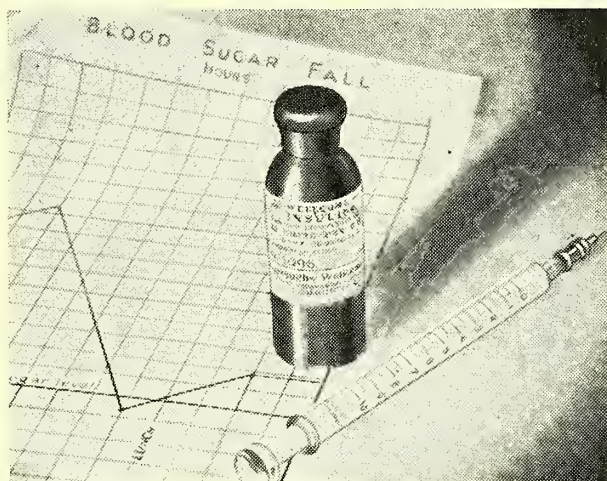
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A Weekly Journal of Pharmacy, the Drug, Chemical and Allied Trades

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News of the Week

Import Duties—Applications

The Import Duties Advisory Committee give notice of applications for an increase in the import duty on:—

Lead acetate.
Superphosphate.

For the exemption of fireproof non-vitrified earthenware cooking utensils from the further additional duty imposed by the Additional Import Duties (No. 8) Order, 1933.

They also give notice of an application for additional duty on, and an application for the addition to the Free List of, asbestos cement products.

Any representations which interested parties may desire to make in regard to these applications should be addressed in writing to The Secretary, Import Duties Advisory Committee, Caxton House (West Block), Tothill Street, Westminster, London, S.W.1, not later than January 8, 1934.

Exemptions from Key Industry Duty—1934

The Treasury have made an Order under Section 10 (5) of the Finance Act, 1926, exempting from Key Industry Duty amido guanidine sulphate and fermentographs, being instruments for measuring and recording carbon dioxide evolved during dough fermentation, from December 12, 1933, to December 31, 1934, and continuing the exemption from Key Industry Duty till December 31, 1934, of the articles specified in the attached list.

Integrators (planimeter type).

Mercury vapour rectifiers having mercury cathodes, of a capacity of more than 200 amperes and having more than three main anode terminals.

Celtium oxide; dysprosium oxide; erbium oxide; euro-

pium oxide; gadolinium oxide; holmium oxide; lutecium oxide; neodymium oxide; praseodymium oxide; samarium oxide; scandium compounds; terbium oxide; thulium oxide; ytterbium oxide; yttrium oxide.

Acid adipic; acid isobutyl allyl barbituric; acid oxalic; acid propionic; amidopyrin (pyramidon; dimethylamido-antipyrine); ammonium perchlorate; barbitone (veronal); malonal; malourea; acid diethylbarbituric; diethylmalonylurea; hypnogen; deba; bromural (dormigene); butyl methyl adipate; calcium gluconate (calcium glyconate); chinoline (quinoline); chinosol; cocaine, crude; dial (acid diallyl barbituric); dicyandiamide; didial (ethyl morphine diallyl barbiturate); dimethyl sulphate; diphenyl; diphenyl oxide; elbon (cinnamoyl para oxyphenyl urea); ethyl abietate; ethyl cellulose; ethylene bromide; eukodal; furfurol; germanium oxide; glycol ethers; guaiacol carbonate (duotal); lead tetraethyl; lipoiodin; metaldehyde; methyl cellulose; methyl cyclohexanol; methyl adipate; methyl sulphonal (diethylsulphonemethylethylmethane; trional); methylene chloride; nickel hydroxide; oxymethyl paraoxyphenyl benzylamine methyl sulphate; papaverine; phenazone (antipyrine); phenyl dimethylpyrazolone; analgesin; anodynine; dimethyl oxychinizin; phenetidine, paraphloroglucine; phytin; piperazine (diethylene-diamine; dispermin); R. potassium chlorate; potassium ethylxanthogenate (potassium xanthogenate); potassium guaiacol sulphate (thiocol); R. potassium hydroxide (R. potassium caustic; R. potassium hydrate); R. potassium permanganate; pyramidon-veronal; quinine ethyl-carbonate; radium compounds; salol (phenyl salicylate); sodium ethyl methyl butyl barbiturate; strontium carbonate; strontium nitrate; styracol (guaiacol cinnamate); sulphonal; synthalin; urea (carbamide).

Amorphous carbon electrodes over 3 feet long, the cross section of which exceeds 12 inches in both length and breadth with longitudinal slots exceeding 2 inches in width and 4 inches in depth.

Vanadium-silica compounds specially prepared for use as catalysts for sulphuric acid manufacture.

It will be noted that R. lead acetate is not re-exempted for 1934, and will therefore be liable to key industry duty on and from January 1, 1934.

Poisons Board

The Poisons Board established by Section 16 of the Pharmacy and Poisons Act, 1933, held its inaugural meeting at the Home Office on December 7, when it was welcomed by the Home Secretary. The Board appointed Mr. M. D. Perrins of the Home Office as secretary, to whom any communications to the Board should be addressed. Mr. K. B. Paice was appointed assistant secretary.

[Biographical notes on and photographs of members of the Board were published in the *C. & D.*, November 18, p. 604.]

Birmingham

Mr. G. Thomas, M.Sc., A.I.C., gave a lecture on "Insulin and Carbohydrate Metabolism" to the University of Birmingham Biochemical Society on November 30.

At a recent meeting of the Council of the Birmingham Pharmaceutical Association it was unanimously decided to make a presentation to Mr. H. Berry, B.Sc., A.I.C., Ph.C., in recognition of his services to pharmacy in Birmingham. Subscriptions should be sent to the secretary, Mr. D. J. Rushton, 1088 Stratford Road, Birmingham 11.

Liverpool

Mr. M. C. Greening has changed his private address to 3 Princes Avenue, Liverpool, as from December 12.

On December 12 an outbreak of fire was discovered in one of the storage sheds of Lever Brothers, Ltd., at Bromborough Dock. The shed was piled up to the roof with copra ready for dispatch to the Port Sunlight mills. The fire brigades managed to confine the outbreak to the one shed, which was practically gutted.

Manchester

We much regret to learn that Mr. J. H. Franklin, chairman of the British Pharmaceutical Conference when it met in Manchester two years ago, is again so unwell as to be unable to take part in pharmaceutical activities.

The forty-eighth annual dinner of the staff of James Woolley, Sons & Co., Ltd., was held at the Grand Hotel, Manchester, on December 8. Lieutenant-Colonel Watson, D.S.O., M.C., presided, and guests to the number of 127 attended. The dinner was followed by a smoking concert which was thoroughly enjoyed.

Miscellaneous

PURIFICATION OF WATER.—Lecturing on "Rural Sanitation" at the Institution of Mechanical Engineers, London, S.W., on December 5, Mr. J. H. Corte, F.I.C., chemist to the London County Council, made the suggestion that rural pharmacists might consider the sale of purifiers for doubtful waters.

BURGLARIES.—The premises of Mr. W. Ashworth, chemist and druggist, Blackpool, were broken into on December 7, but the intruders decamped with articles of no great value.—A safe containing a sum of money was stolen recently from the establishment of Boots, Ltd., Lower Marsh, Lambeth, London, S.E.

REGISTRATION OF OPTICIANS ADVOCATED.—Speaking at the National Conference of Industrial Assurance Approved Societies, held in London on December 11, the president, Sir Thomas Neill, said that on the whole opticians have rendered excellent service to the public, but there are admittedly a number of persons to-day testing eyesight and selling glasses of whom this cannot be said. In the absence of a State register of qualified opticians there is undoubtedly an urgent need for a register or panel of competent opticians to whom the approved societies may with confidence refer their members.

PHYSICIAN'S TRIBUTE TO PHARMACY.—Speaking in London on December 11, Lord Dawson of Penn described the recent British Pharmaceutical Conference meeting as a landmark in healing. Lord Dawson added that the

Conference served a great public purpose. It was a gathering of the scientists of pharmacy from many countries and showed how science had grown, how it had gathered in knowledge, how it had widened its sphere of usefulness. Pharmacy had been giving an increasing contribution to the art of healing, and it was an exemplar of what other callings should do in the way of the organisation of themselves.

METHYLATED SPIRIT DRINKING.—The use to which methylated spirit is being put in some cases was referred to in a report presented by the chief constable (Major L. H. Morris) at a meeting of the Devon Standing Joint Committee on December 5. Major Morris pointed out that the spirit could be obtained from ironmongers' and other establishments over which there was no police control, so that it was not easy to see how sales could be prevented. To his mind the whole matter of drunkenness from methylated spirit drinking had been grossly exaggerated, because persons who once drank that spirit almost always continued to drink it and became so paralytic that they had to be taken care of. When a case was taken into prison the man was kept under observation, because a man in such circumstances was very often in a rather dangerous state. Such persons were pretty certain to return to the practice, and they thus got a stage army of methylated spirit drinkers, who appeared before the magistrates on charges of drunkenness again and again, giving the impression that the practice was much more prevalent than was really the case.

PROBLEMS IN MARKETING.—A meeting of The British Sales Promotion Association was held at Anderton's Hotel, Fleet Street, London, E.C.4, on December 13. A paper was read by Mr. Stanley Townsend on "Bigger Sales in 1934." Urging that sales promotion work should be planned on a period basis, the speaker said:—There is a definite sales promotion lag. However good a proposition is, the public has got to be given time to respond. The sales promotion executive must make his plan cover a sufficient period and estimate for low results in the early part of the period. This conservatism is essential for his own protection. The sales promotion executive should see that the cost of distribution does not begin to pull down the volume of sales or of actual merchandise handled, being concerned with moving the product rather than the wrappings: it is vital to him that every pound of purchasing power should pull as much merchandise as possible out of the factory because it is merchandise that is the foundation of trade. Research during selling campaigns can assist, added Mr. Townsend, in that rapid adaptation of policy which is of the essence of success.

Scottish Notes

Brevities

Christmas window displays show a great improvement over previous efforts all over the country.

Mr. J. D. Harvey, chemist and druggist, 52 High Street, Tranent, who recently underwent a serious operation, is reported to be progressing satisfactorily.

A meeting of the Glasgow and South-Western Scottish Branch of the Pharmaceutical Society will be held in the Ca'dora Restaurant, on December 20, at 8 p.m. The meeting will continue the discussion on the proposed regulations for the training of apprentices in shops.

A cinematograph entertainment of an unusually interesting kind, and one which demonstrated the potentialities of the home cinema, was recently given in the Unionist Rooms, Dumfries, by Mr. William Murray, chemist and druggist, Galloway Street. The gathering was held under the auspices of the Junior Imperialist Union.

Notwithstanding the amendment vote of the General Council of Panel Chemists (Scotland) (*C. & D.*, December 9, page 680), it is stated that many Scottish chemists will instruct the clerks of their respective insurance committee to delete their names from the 0.5 per cent. mandate levy in support of the Standing Committee. It is thought that this 0.5 per cent. "investment" has ceased to yield any "dividend."

Irish Notes

Pharmaceutical Society of Northern Ireland

THE results of the December examination of the Pharmaceutical Society of Northern Ireland are as follows:—

Examinations under Schedule 2, Part IV (Parts I and II) of the Pharmacy and Poisons Act (Northern Ireland), 1925, were held in the Municipal College of Technology, Belfast, on December 4-7 inclusive. The following candidates, having passed in all the necessary subjects, are recommended for the Preliminary Scientific certificate and the certificate of Pharmaceutical Chemist respectively:—

Under Schedule 2, Part IV (Part I)—Preliminary Scientific:—J. S. Aitken, C. Anderson, W. A. Beggs, W. A. Boyd, P. G. Cosgrove, Annie Finnegan, R. R. Harpur, S. Jackson, S. J. Johnston, R. M. Lemmon, F. A. Mackey, R. Maxwell, W. J. Maxwell, G. Mercer, J. Rankin, J. D. Sheils, S. E. Taylor, S. H. Wilson.

Under Schedule 2, Part IV (Part II)—Final:—Ruth J. W. Barry, J. Bell, W. H. Boyd, W. J. W. Crawford, C. L. Gordon-Rattie, S. N. Ledlie, W. J. Moffet, W. A. Norris, J. B. Thompson.

The following candidates are referred in the subjects specified and may complete at one subsequent examination:—

Under Schedule 2, Part IV (Part I)—Preliminary Scientific:—In botany, R. B. Boyle, J. Francey, W. Guilfoyle, Nell M. Hay, C. E. Moss, Eileen H. Murray, Charlotte E. Nesbitt, J. F. O'Neill, F. H. Richardson; in botany and chemistry, H. H. Cowzer, G. R. A. Dick, J. C. Johnson, R. C. McCullough, W. J. S. Nixon, J. V. Smith, E. J. Stafford, M. J. Tierney, J. H. White; in chemistry, E. A. Bourke, M. P. Lee; in chemistry and physics, J. R. Ballentine, J. G. Finlay, S. Magowan, H. J. Marshall; in botany and physics, R. J. F. Sanderson.

Under Schedule 2, Part IV (Part II)—Final:—In pharmacognosy, A. F. Loughran, D. J. Morris, L. Murray, W. E. Thornton; in chemistry, T. G. Rutledge; in pharmacognosy and chemistry, J. W. Allister, W. P. Ewart, J. W. Gilchrist, W. J. Heatherrington, Annie F. E. Kirk, J. H. A. Magee, G. M. Shaw.

Brevities

The latest dates for making application for the January examinations of the Pharmaceutical Society of Ireland are as follows:—Registered Druggist examination, Tuesday, December 26; Licence examination, Monday, January 1; Assistants' examination, Thursday, January 11; applications must be lodged by 11 a.m.

Mr. Rutledge, Minister for Home Affairs, in moving the second reading of the Dangerous Drugs Bill in the Senate recently, said it was not necessitated by any traffic in "dangerous" drugs in the Irish Free State. Sir E. C. Biggar objected to the power entrusted to any postal official to open any suspected postal packet. He also suggested there should be some restrictions imposed on the power given to Gardai to enter premises. Mr. Rutledge said he would have the section dealing with the postal authorities deleted. The Bill was passed.

On December 7, a deputation from the Council of the Pharmaceutical Society of Ireland was received at the Department of Agriculture, when representations were made on behalf of retail pharmacists to have the existing provisions in the Cereals Act, as relating to the manufacture of veterinary medicines, amended. The officials who received the deputation gave the case a sympathetic hearing, and indicated that they would have the issues raised fully considered. The members of the deputation were Messrs. D. Warwick (vice-president of the Society), J. J. O'Rourke (a member of the Council) and James J. Kerr (registrar).

Topical Reflections

By Xrayser

If Proof Is Required

of the indifference of members of the Pharmaceutical Society to the new Act, it is surely to be found in the fact, reported on p. 707 of last week's *C. & D.*, that only about forty were present, including members of the Council, at the last meeting at which it is legal for a meeting of members to approve and confirm by-laws. The truth is that a large majority of members is quite indifferent to what will happen after January 1, and others regard the future with a feeling akin to despair. It is true that a semblance of democratic control can be exercised by thirty members, who can require the Council to convene a special meeting for special purposes; it cannot, however, be gainsaid that at the meeting on December 6 the death knell of the right of a member to air his grievances at a meeting of his own Society, and in a manner essentially British, was sounded. So ends almost a century of organisation broad-based upon the pharmaceutical electorate; on the whole it has worked well, and has justified the dreams and efforts of those few stalwarts who, at that famous tea party over an Oxford Street pharmacy, "built better than they knew." Now enters a new régime, based upon officialdom and bureaucracy.

Among the Resolutions

moved at the recent Conference of the National Pharmaceutical Union, not the least interesting were two to the effect that a nurses' registration card should be issued by the N.P.U., the owner of it becoming entitled to a discount of 10 per cent. It was explained by the chairman of the Conference that it had already been decided to issue such cards, and that

these would soon be available. Discount to nurses is a thorny subject. I presume that it will be given on proprietaries in the same way as certain manufacturers allow a "professional discount" of 10 per cent. from their specialities to be given by chemists to medical men. I am afraid that the nurses' concession is open to abuse. The intention is that should a nurse require a preparation for herself she would quite properly claim the discount; but what is to happen if she shops for her employer and is able to obtain 10 per cent. upon many of the articles she buys? She could keep this discount herself or pass it, or some of it, on to her employer for the time being. Again, where does the discount stop? Does it apply to everything medicinal purchased from a chemist, or will certain classes of goods be excluded? I trust that the N.P.U. Executive have very carefully considered the subject and its implications and will issue such instructions to its members that there shall be no ambiguity in their interpretation.

The Article on Christmas Trade

on p. 701 is sound and practical. The suggestion on the comfort of customers should be noted particularly. A warm, comfortable shop can be provided by most pharmacists to-day; but the ideal place for Christmas buying is a room, not too far from the pharmacy, where customers can make their choice of goods in peace and comparative quiet. Seats should be provided, and there should be no undue pushing of any of the goods displayed. Decorations will not be out of place. The suggestion that offers should be made to pack for post any presents to be sent away is also a good one. Such service is always appreciated, and never more so than at Christmas.

Action for Alleged Libel

THE hearing of the action brought by Wynter Brothers & Co., Ltd., Low Green Works, Great Horton, Bradford, against Odhams Press, Ltd., and Sir Wyndham Childs (*C. & D.*, December 9, p. 694) was continued in the King's Bench Division of the High Court, London, on December 4, 5, 6, 7, 8, 11 and 12.

After evidence from Mrs. Helena Leighton, Whaley Bridge, and Mr. Owen Davies, Post Office, Tanygrisiau, Merionethshire,

Miss Gertrude Mary Twigg, Withernsea, said Mr. Perry offered her father a sole agency for any of the plaintiffs' goods. She gave him an order, signed the order form and put the total amount on the form. She ordered 24 of one article but received 24 cards of them. Her father wrote repudiating liability and they were not sued. Replying to Mr. Birkett, Miss Twigg said she gave an order for six dozen articles. She agreed that she wrote the words "Six gross only" on the order form, but said she did so in a hurry.

Mr. John George Twigg, chemist and druggist, father of the previous witness, said that after Mr. Perry's visit he wrote to Mr. Mallinson about the order. Mr. Twigg agreed, in answer to Mr. Birkett, that without waiting to see the amount of goods sent he wrote repudiating the order. He was a member of the R.P.U. and had heard of the plaintiffs' business.

Further Evidence for the Defence

On December 5 Mr. F. H. Humphreys, hairdresser, Lymington, concluded his evidence commenced on the previous day. The other witnesses on that day were Mrs. Sarah Moss, Wilmslow; Mr. Robert William Morgan, Downton (Wilts); Mr. G. Roberts, boot and shoe retailer, Wrexham; Mr. Herbert Denny, formerly chief clerk at Bradford County Court (who stated that between June 1930 and the end of May 1932 Wynter Brothers brought 324 actions in the court); Mrs. Eliza French, North Terrace, Seaham Harbour; and Mr. John Howard, bootmaker, Bakewell.

At the outset of the hearing on December 6, Sir Patrick Hastings said that before he continued to call evidence he would like to make an observation. "I have a very large number more witnesses," he said, "to give evidence to the same effect. Mr. Birkett and I are most anxious, if it is possible, to finish the case this week. If I go on calling witnesses indefinitely it cannot. I am quite prepared to go on calling witnesses all to-day, and at the end of to-day, if Mr. Birkett is willing that all the correspondence shall be put in so that he is at liberty to take out any case and comment upon it, I am willing that that should be done."

Mr. Justice Horridge: You mean, to use the correspondence in cases where the witnesses have not been called?—Sir Patrick Hastings: Yes, as against me. But I do not want it to be thought that the witnesses I have called are all that are available.—Mr. Birkett said, while he was anxious to co-operate in bringing the case to a speedy conclusion, he could not assent to this course. If the course suggested were adopted, he would have to take the position that these were the only cases with which the jury could deal.—Sir Patrick said that under the circumstances he must continue to call witnesses.

The first four witnesses were Mr. T. Berry, boot dealer, Ingleton, Yorks; Mr. Ralph Slack, Chapel-en-le-Frith; Mrs. Florence Pryor, Brecon; and Mr. Francis W. Claridge, boot retailer, Parkstone.

Mr. Harold Float, chemist and druggist, Hesketh Bank, Lancs, said when Perry called on him in June 1932, before any amount had been mentioned Perry wrote out an order. Perry said the amount would be £4. The invoice was for £13 9s. Answering Mr. Birkett, he agreed that he wrote on the order "Total 39 dozen," but said he took Mr. Perry's word for it.

Mr. Harry Buckingham, chemist and druggist, Aston, Birmingham, said when he gave Perry an order in March 1930, at the request of the latter he wrote on it "9½ gross." He realised his mistake almost immedi-

ately, but as Mr. Perry had gone he wrote to the plaintiffs, who replied that the goods had been specially packed and despatched. "I was amazed at this," said Mr. Buckingham. "I think they must have worked all day on Sunday to do it." The goods sent him were valued at £35 3s. 6d., and at his two shops he had sold only about £6 worth.

Mr. James S. Betterton, a chartered accountant, stated in evidence that, basing his calculations on the number of orders Wynter Brothers received during four months in 1930, he found that 7.2 per cent. were for amounts of over £10. In 1924 the plaintiffs' sales totalled about £6,000; in 1925, Mr. Perry having joined them in that year, the total rose to about £12,000. Up to 1924 the managing director's salary was £625 per annum, but since 1925 Mr. Galloway, the present managing director, had received £1,500 a year. Replying to the judge, Mr. Betterton said the total sales for the six months ended December 1932 were £6,905, which was about £300 more than for the corresponding period of 1930. The year 1931 was bad for trade. The sales figures for the second half of each of the three years were:—1930, £6,634; 1931, £5,083; and 1932, £6,905.

After a Dover leather merchant, Mr. George E. Took, had given evidence,

Mr. John F. Sanders, chemist and druggist, Crewkerne, Somerset, said when he signed an order form in August 1926 it was blank. He left Mr. Perry to fill in the quantities, which were to amount to £5. He was sent more than he ordered. Questioned by Mr. Birkett, Mr. Sanders said he suggested that Perry wrongfully filled in the order form after it had been signed. He did not agree that the order was written in his presence. Miss Grace Bosence, boot dealer, Lyme Regis, was the only other witness on December 6.

Mr. Mallinson's Evidence

When the judge took his seat on December 7, Sir Patrick Hastings said that the jury had expressed a wish to hear the evidence of Mr. Mallinson, secretary of the National Pharmaceutical Union, although he (Sir Patrick) would not have thought that his evidence was relevant or admissible.

Mr. G. A. Mallinson, in the witness-box, said he had been secretary of the N.P.U. since 1921, and that about 90 per cent. of the retail chemists in the country were members of the Union. A complaint regarding Wynter Brothers was first received by him in 1926, and he had correspondence with the plaintiffs. Subsequently he had received a number of similar complaints. Sir Patrick Hastings: Have you ever had the slightest object, either in the letters you wrote or the actions you have taken, except to protect your members against what you thought was an imposition?—Never. From beginning to end, has there been any other motive in your mind except that?—None whatever. As secretary of your Union, is it your duty to use your best endeavours to protect members?—It is a thing we promise them. Had you any other object in doing that except to protect your members against what you thought might be future imposition?—It was to protect them from making what I thought would be mistakes. Asked if the Union had assisted its members in county court actions, Mr. Mallinson said they had provided free legal defence in accordance with their rules. This had been done on four or five occasions in connection with Messrs. Wynter Brothers.

Cross-examined, Mr. Mallinson said that the N.P.U. had about a hundred branches up and down the country, with local secretaries. Mr. Birkett: And if you want to give publicity to anything, you are in a good position to do so?—Yes, in our own trade. You realise that by the publication of your settlements you are in a position to do a great deal of harm to people—Wynter Brothers, for instance?—Yes. Asked by Mr. Birkett why, after writing once to the plaintiffs about a complaint, he never communicated with them again, Mr. Mallinson said:

"Towards the end of 1926 or early in 1927, I came to the conclusion that it was not a bit of use writing to the firm again, because they would not believe that their travellers could be wrong." He agreed that he told Perry that it would be better if he put the total of the order and the money value on the order form. "I persist in the statement (made in correspondence) that plaintiffs' representatives deliberately misled our members into giving orders which they did not want to give," Mr. Mallinson declared, answering a further question. Mr. Birkett: Do you persist in saying that Perry has altered the orders after taking them down?—"I would not like to say he had not done so," was Mr. Mallinson's reply.

Questioned as to county court litigation, he said: "After our unfortunate experiences at Bradford County Court, we felt it was hopeless to fight any further cases." "The whole suggestion," he added, "was that because a customer had put the total quantity on the order he had ordered that quantity. The complaints of members of his Union were that they did not order the amount written on the order form." Mr. Birkett: Is it your experience that people sign blank order forms?—"It is not my experience, but I have known it happen. He had been informed by chemists that they had signed a blank order, and he (Mr. Mallinson) told them that they were foolish to do so. Chemists were well-educated people, but it was his experience that the better educated a man was the less likely he was to look for trouble in regard to an ordinary business transaction. Mr. Mallinson agreed that in October 1927 a representative of the Union saw Mr. Galloway, the plaintiffs' managing director, and reported that Wynter Brothers were convinced of the integrity of their travellers. He did not agree, however, that complaints of fraudulent conduct by the travellers having been made, the company were bound to have each case investigated in a county court in order to avoid any appearance of an admission of guilt. Mr. Mallinson said he did not write to "John Bull" before the publication of the alleged libel. A representative of that journal was given permission to inspect complaints which the Union had received from some of plaintiffs' customers. The representative was given a *précis* of each case. "Personally," Mr. Mallinson added, "I was annoyed at any outside interference in this matter, but I did not feel that I could conceal from 'John Bull' the material I had."

Replying to Sir Patrick Hastings in re-examination, Mr. Mallinson said he had never instigated people to make bogus complaints against Wynter Brothers. It was not his desire to help a dishonest chemist to get out of an obligation. Since the middle of 1927 he had received about 100 complaints concerning the plaintiff firm.

Mr. Daniel John Edwards, an Ammanford (Carmarthenshire) boot retailer, was the next witness.

Mr. T. P. Brett, chemist and druggist, Letchworth, gave evidence regarding a visit by Perry in May 1926. He gave an order for 6 doz. articles, stipulating that his order should not exceed £2 in value. In the following month he received an invoice for £22. He wrote pointing out that two dozen of each article had been ordered, but that two gross had been sent, but received a reply to say that the invoice was in accordance with the order form. He was sued at Bradford County Court and lost. Replying to Mr. Birkett, Mr. Brett said when he signed the order it had only the figures "24" on it. The figures were not followed by the word "cards." Mr. Humphreys, Mr. Brett's assistant, gave corroborative evidence.

The other witnesses were Mr. Ellis Jones, Owestry, and Mr. Phillips, Plympton.

While counsel consulted with his lordship as to the questions to be submitted, the jury were allowed to leave the court. Mr. Birkett, before the jury left the box, said a number of cases of which the plaintiffs had given particulars had not been dealt with in evidence. He submitted that the only matters which defendants could rely upon were those which had been put in evidence. Sir Patrick Hastings agreed. One of the two women members of the jury was not present, and counsel agreed that the hearing should continue with nine jurors, two having been released previously.

Concluding Speech for the Defence

Sir Patrick Hastings, addressing the jury, said he had set out to prove that Mr. Perry, one of Wynter Brothers' travellers, was a thoroughly dishonest person. "If I have not proved it," added counsel, "I must take the consequences; but if I have proved it I think you will agree that it would be little short of a calamity if, because of forensic eloquence or claims to sympathy for an old-established business, you approved what Mr. Perry has done and intends to go on doing, because he is not ashamed of what he has done. Mr. Galloway, the managing director of Wynter Brothers, says that Mr. Perry is an honest man. I say frankly that Mr. Perry is a rogue and a thoroughly dishonest person, who has tricked these unfortunate people for years, and wants to go back to his business with a licence from the jury to say that his methods are right."

Of the travellers whose names had been mentioned, said Sir Patrick, Mr. Perry was the only one who sent orders by telegram and had a code. In one case a customer wired cancelling his order, and Mr. Perry's report in that case had not a word of truth in it. Sir Patrick, who described Mr. Perry as "an unmitigated liar, who does not mind what he says," said that in only one case did Mr. Perry return to a person who had complained and ask for another order or offer an explanation. In that one case Mr. Perry had said that the customer was out. Dealing with the question whether Wynter Brothers knew about Mr. Perry's methods, Sir Patrick pointed out that Mr. Galloway dealt with all the complaints and was aware that after Mr. Perry joined the firm in 1925 the sales were doubled. Mr. Galloway claimed, said counsel, that he investigated every complaint, but he had never been to see a customer who complained or sent an independent person to do so. The truth was that he had not investigated one complaint. In every case in which a customer tried to cancel an order, the reply sent was that the goods had been specially packed and dispatched.

Concluding Speech for the Prosecution

Mr. Norman Birkett told the jury that the case had been conducted in such a way that for Mr. Galloway it was, in a business sense, literally life or death. He submitted that the article in "John Bull" did impute that the plaintiffs were dishonest traders, and that that imputation was not true. It was clear that Mr. Perry was a good salesman, who took thousands of orders by his power of interesting people and talking about the goods he was selling. He had been denounced as a rogue and a trickster, but that allegation, so persistently made during the hearing of the action, was not justified. Many of the witnesses for the defence were, Mr. Birkett asserted, filled with malice and vindictiveness.

Concluding his address to the jury on December 11, Mr. Birkett said that the original complaint made against Wynter Brothers was that grosses had been substituted for dozens in the orders. "My submission is," said Mr. Birkett, "that in every case in which the allegation has been made that Wynter Brothers sent more goods than had been ordered—the customer saying that dozens were ordered and grosses were sent—there has never been a case investigated in any court (and there have been many cases) in which the plaintiff company did not succeed. That, of course, is important not merely on this matter, but it becomes all-important when I deal with the position of Mr. Galloway, the managing director of Wynter Brothers." Mr. Birkett said he had been urged by Mr. Galloway to deal with all the 100 cases before the court, but, exercising his discretion, he did not intend to do so. Comment was made by Mr. Birkett on the fact that the jury had not had an opportunity of seeing Sir Wyndham Childs or a representative of Odhams Press to say what material they had for the article and why it was published. Even if the defendants had satisfied the jury that Mr. Perry was a traveller who could not be trusted and who had been guilty of deceit or trickery, that was not enough, because the article had gone much further and said that the company knew of Mr. Perry's methods. Referring to the fact that Mr. Galloway lent the plaintiff company £8,000 and was given a debenture on November 16 last,

Mr. Birkett described Mr. Galloway's act as "wise, prudent and businesslike." There was no ground whatever for suggesting that Mr. Galloway was dishonest and a trickster.

The Summing Up

Mr. Justice Horridge, summing up, said this was not an action by Mr. Galloway, but by Wynter Brothers. As a trading concern, the company could recover damages only in respect of injury to its trading reputation. "Mr. Galloway has been able to finance this action in the name of the company," added the judge, "and protect himself by taking a debenture at the last moment, so that if the defendants are successful and are awarded costs they will be met, when they put in execution to get their money, by the debenture in favour of Mr. Galloway." His lordship said he proposed to deal with the case under two heads: "Did Perry behave dishonestly?" and "Must the company through Mr. Galloway (who was the company, as he held practically all the shares), have been a party to what Perry was doing?" The cases, the judge pointed out, came from all parts of the country, and dated from 1926 to 1932. Many of the customers signed orders for grosses of goods, and, while it was very stupid of them to sign, the question was whether they signed carelessly—Perry knowing that they were doing it carelessly—and whether he got that out of them when, in fact, a very different order had been given. Evidence given in the case of Mr. William Davies, manager of the Clynderwen Farmers' Association, who followed Mr. Perry to Carmarthen with the object of cancelling his order, was read by Mr. Justice Horridge, who said the jury had to ask themselves whether Mr. Davies could be mistaken. Why did he send a telegram to the London address which Perry had given him? Could there be a word of truth in Perry's evidence that he sent the order by telegram because Mr. Davies was in a hurry to get the goods? His lordship next read evidence given by Mr. William Winter, chemist and druggist, Ushaw Moor.

Concluding his summing up on December 12, Mr. Justice Horridge told the jury that in order to succeed in the action the plaintiffs had to establish that the article was libellous, and that it referred to the firm. As the defendants said that the article was true, the burden of proving that Mr. Perry was a dishonest traveller and that the company knew it rested on the defendants. After he had read some of the evidence given in the action, the judge pointed out that not only had witnesses said that they limited the amount of their orders, but they put that statement into their letters written at the time. "I have taken out," continued the judge, "eleven cases in which customers wrote to Wynter Brothers at the time stating that a specific sum had been mentioned as the value of the goods ordered. You may think that if a respectable firm were told that their traveller had stated a specific sum, and then got the customer to sign for another, they ought to have been very suspicious of that traveller." Other evidence was read by his lordship, who explained to the jury: "I have put those instances before you as perhaps the clearest instances of what is said by the defendants—that the traveller Perry, when he knew perfectly well that the people were not ordering anything of the kind, deliberately wrote those figures on the order and got the customers to write the quantity in grosses and sign the order. You have to decide in this case whether Mr. Galloway, the managing director of the company, honestly believed that Perry was doing an honest trade; whether, knowing that Perry had increased the company's turnover from £6,000 to £12,000 a year, that Perry was getting large orders, and that complaints were coming one on top of another, Mr. Galloway knew, or must have known if he was an honest trader, that Perry was not getting his orders honestly."

It had been suggested that Mr. Galloway was extremely anxious to dispatch the goods quickly. "You may think," said the judge, "that if he thought there was anything doubtful about the orders he would be anxious to send the goods as quickly as possible before the customer had a chance to repudiate the order, or,

on the other hand, you may think that no such motive would actuate him."

It was suggested that the plaintiffs were unduly anxious to get the goods packed immediately because they knew that unless that was done the orders might be in jeopardy. "You have to decide whether the plaintiffs could honestly believe, without deliberately shutting their eyes, and after they had received complaints from every part of the country over a long period of time, that Perry was getting orders honestly. Of course, it can be urged in Mr. Galloway's favour that the county court judge decided the cases by giving judgment for Wynter Brothers, but presumably the county court judge had not the knowledge that Mr. Galloway had. The judge apparently decided the cases on the fact that the order was produced and it was signed by the customer. Mr. Galloway may possibly have felt that, as the judge had decided in his favour, there could be nothing wrong and he was entitled to consider that Perry was an honest man. On the other hand, he may have known perfectly well that he had knowledge which the county court judge had not."

Mr. Justice Horridge concluded his summing up by saying: "The case is one of great importance. Although you cannot give Mr. Galloway a halfpenny of damages for his own feelings, he must feel strongly the reflection made on the company, in which he is practically the sole shareholder, and of which he is the managing director. On the other hand, if you are satisfied that what has been written about this firm or about their traveller is true you will not hesitate to say so, and the paper which has brought to light—if it has brought to light—the system under which many people are alleged to have been victimised—and many of them poor people—has done a public service."

Verdict

The questions put to the jury and their answers were:—

- (1) Did the article impute dishonest trading to the plaintiffs?—Yes.
- (2) If so, was it true?—Yes, substantially.
- (3) Was the article otherwise defamatory?—Yes.
- (4) If so, was it true?—Yes.
- (5) If the article imputed dishonest trading, was that imputation a statement of fact or a comment?—A comment.
- (6) If it was a comment, was the article a fair comment?—Yes.
- (7) If the article did not mean that the plaintiffs were guilty of dishonest trading, was it otherwise fair comment?—Yes.
- (8) Damages.—Nil.

The jury were absent from the court for an hour and a quarter. Judgment was entered for the defendants, with costs.

Libel actions by Messrs. Wynter Brothers against the Shoe and Leather Record, Ltd., and others, and against Straker Brothers, Ltd., and another, were in the list, but it was agreed that they stand over until next term. The hearing of the action occupied twelve days, and over thirty witnesses gave evidence.

We have received the following letter from Messrs. Langford, Borrowdale & Thain, solicitors, 5 and 6 Clements Inn, W.C.2:—

We have been consulted by our clients, Messrs. P. H. Galloway, Ltd., of 154/164 Walworth Road, S.E., manufacturing chemists, and also by the chairman of that company, Mr. Philip Henry Galloway, and the managing director thereof, Mr. Jack Ellwood Galloway, in regard to the above action, and in which a gentleman, Mr. Walter Galloway, has been referred to, and serious allegations have been made against the firm of Wynter Bros. & Co., Ltd. . . .

We have therefore received instructions to ask you to be good enough to insert in your paper a denial that either P. H. Galloway, Ltd., Mr. P. H. Galloway or Mr. J. E. Galloway are or have been in any way concerned with Wynter Bros. & Co., Ltd.

Legal Reports

Interim Injunction Granted.—In the Chancery Division of the High Court, London, on December 7, Mr. Justice Bennett heard a motion by Edwards Harlene, Ltd., claiming an interim injunction pending the trial restraining Original Vegetable Beauty Products, Ltd., from infringing their trade mark "Harlene" by the use of the word "Arline" for the same class of goods. Mr. Trevor Watson, K.C., and Mr. Bray appeared for the plaintiffs; Sir A. Colefax, K.C., and Mr. Swan were for the defendants. His lordship said that on January 24 last Mr. Justice Luxmoore restrained a company called Arline, Ltd., from infringing the plaintiffs' trade mark. The defendants had purchased the business and goodwill of Arline, Ltd., from a receiver appointed by debenture holders, and it had been proved in this case that the defendants had sold bottles of lotion, hair preparations, shampoos, etc., upon which the word "Arline" appeared. The conclusion he came to was that the use of the word "Arline" applied to the same class of goods as the plaintiffs' was calculated to mislead the public, and he granted an injunction until judgment or further order restraining the defendants from infringing the plaintiffs' trade mark.

Claim for Injunction Fails.—In the Chancery Division of the High Court, London, on December 7, Mr. Justice Bennett heard an action by Taylors (Cash Chemists) Midland, Ltd., claiming an injunction restraining Mr. Frank Charles Perry from carrying on business at Belle Vue Terrace, Malvern, in alleged breach of an agreement not to sell drugs, chemicals, or photographic and optical goods within a mile of the plaintiffs' shop at 10 Church Street, Malvern, within five years of leaving their employ. It was stated that Mr. Perry was engaged as manager of the plaintiffs' optical department at 10 Church Street in July 1929, and entered into the agreement referred to. He left in September last, and then began business as an optician at Belle Vue Terrace. The plaintiffs alleged this was a breach of his agreement and was likely to damage their business. Mr. Perry alleged that the agreement was wider than was reasonably necessary for the protection of the plaintiffs' business, and was in restraint of trade; and that the plaintiffs themselves had broken the agreement. His lordship held that the covenant was wider than was necessary for the protection of the plaintiffs' business, and that it was unnecessary to exact from the defendant a covenant not to engage in the business of selling chemicals, drugs and photographic materials. The plaintiffs had not proved that the defendant, by reason of his employment, had acquired any personal knowledge of or influence over the plaintiffs' customers, or that he acquired any trade secret that needed to be protected by the covenant.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office

DAE HEALTH LABORATORIES (IRISH FREE STATE), LTD. (P.C.).—Registered in Dublin. Capital £200. Objects: To carry on the business of manufacturers of, agents for and dealers in toilet preparations, soaps, powders, paste, perfumes, etc.

UNIVERSAL ADHESIVES, LTD. (P.C.).—Registered in Edinburgh. Capital £1,000. Objects: To carry on the business of chemical manufacturers and manufacturers of all kinds of adhesives, etc. R.O.: 45 Hope Street, Glasgow, C.2.

GEORGE INGLE, LTD. (P.C.).—Capital £5,000. Objects: To acquire the business of chemists, druggists, opticians and photographers carried on by G. O. Ingle and J. E. Gaiger at Wellington Place, Barrack Road, Northampton, as "George Ingle."

P. HOLGREAVES, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of consulting, analytical, manufacturing, pharmaceutical and general chemists, drug merchants, etc. Solicitors: Ernest Oliver Taylor, 35 Newhall Street, Birmingham, 3.

J. ELLISON & COMPANY, LTD. (P.C.).—Capital £500. Objects: To carry on the business of manufacturers, refiners, blenders, importers and exporters of and dealers in oils, glycerine, chemicals, and other similar and allied substances, etc. R.O.: 8 Lloyd's Avenue, E.C.3.

COMMERCIAL LEAD, LTD. (P.C.).—Capital £100,000. Objects: To acquire the undertaking, property and assets and all the debts, liabilities and engagements of Commercial Lead, Ltd. (incorporated in 1931), to acquire mines and mining rights, and to carry on the business of manufacturers and exporters of and dealers and workers of chemicals and chemical articles and appliances, etc. Solicitors: Argyle & Sons, Tamworth.

RAYCOL PRODUCTIONS, LTD. (P.C.).—Capital £100,000. Objects: To adopt an agreement with Guests Trust, Ltd., to register and acquire any patents, to manufacture and deal in cameras, photographic dry plates, films, papers, lamps, chemicals, lenses, frames and apparatus, and dealers in cinematograph apparatus, etc. (C. H. C. Guest signs documents as director.). R.O.: 8 Waterloo Place, S.W.1.

BOOTS PURE DRUG CO., LTD.—Quarterly interim dividend declared on the ordinary share capital, at the rate of 6 per cent.

UNITED INDIGO & CHEMICAL CO., LTD.—Interim dividend declared on the 5 per cent. preference shares for six months ending December 31, 1933.

BRITISH OXYGEN CO., LTD.—Dividend warrants for half-year ending December 31, 1933, on 6 per cent. preference shares, will be dispatched on December 30.

COW & GATE, LTD.—After allowing for taxation, trading profit for the financial year ended September 30, 1933, amounted to £48,215, compared with £46,555 for the previous twelve months. With dividends, interest, etc., the totals are £54,765 and £51,276 respectively. The dividend on the ordinary shares is increased from 16½ per cent. to 18½ per cent., less tax. Carried forward, £24,469, against £18,996 brought in. General meeting at Guildford on Thursday, December 21, at noon.

IDRIS, LTD.—Directors' report and balance sheet for the financial year ended October 31, 1933, shows that, after charging all depreciations, the profit for the year is £22,190 5s. (as compared with £18,201 7s. 10d. for the previous twelve months). Brought forward, £5,612 19s. 4d., making a total of £27,803 4s. 4d. The following appropriations are recommended:—Debenture interest, £2,100; dividends on A and B preference shares, £7,300; on A and B ordinary shares, £6,800; on founders' shares, £900; leaving a balance carried forward of £10,703 4s. 4d. Two directors, Mr. W. T. W. Idris and Mr. J. E. Southwell, retire and offer themselves for re-election. Meeting at Midland Grand Hotel, St. Pancras Station, N.W., on Tuesday, December 19, at noon.

LEWIS & BURROWS, LTD.—Report and accounts for the year ended September 30, 1933, show that, after setting aside £1,000 for depreciation reserve and providing for directors' and auditors' fees and expenses, the net profit amounted to £8,737 8s. 3d., which, with £1,147 16s. brought in from the previous twelve months, gives a total of £9,885 4s. 3d. The directors propose to make the following allocations:—Transfer to sinking fund for redemption of loan, £510 8s. 4d.; depreciation reserve account, £500; shops improvements and development account, £350; write off expenses in connection with loan on mortgage, £215 17s.; staff benevolent fund, £246 16s.; dividend at 6 per cent. per annum on preference shares, £1,800; dividend at 10 per cent. per annum on ordinary shares, £5,348. Balance carried forward, £914 2s. 11d. The reserve accounts stand at £44,392 12s. 3d. The retiring director, Mr. W. B. Trick, J.P., offers himself for re-election.

Christmas Holidays

WE understand that the following wholesale houses will close on Saturday, December 23, about mid-day, and will reopen on Wednesday morning, December 27, unless otherwise stated:—

- Allen & Hanburys, Ltd., Bethnal Green, E.2. (Urgent orders can be executed at 7 Vere Street, W.1. Mayfair 2216.)
- Allen, Stafford & Sons, Ltd., Cowper Street, E.C.2 (Friday evening, December 22).
- Arnfield, J. C., & Sons, Ltd., Princes Street, Stockport.
- Ayrton, Saunders & Co., Ltd., Liverpool. (Stocktaking December 28-29-30, urgent orders only.)
- Bayer Products, Ltd., Africa House, Kingsway, W.C.2. Closing Friday evening, December 22. (Urgent orders from John Bell & Croyden, 50-52 Wigmore Street, W.1, and Mr. R. Woolby Brooke, 19 Gloucester Road, S.W.7.)
- Bell, John, Hills & Lucas, Ltd., Tower Bridge Road, S.E.1.
- Berton, Arthur, Ltd., Old Street, E.C.1.
- Bourjois, Ltd., Water Lane, E.C.4.
- British Drug Houses, The, Ltd., Graham Street, N.1.
- Britton, Malcolm & Waymark, Ltd., Southwark Bridge Road, S.E.1. (Reopen December 28.)
- Brooks & Warburton, Ltd., Vauxhall Bridge Road, S.W.1.
- Burge, Warren & Ridgley, Ltd., Great Saffron Hill, E.C.1 (reopen December 28).
- Burgoyne, Burbidges & Co., Ltd., East Ham, E.6.
- Burroughs Wellcome & Co., Snow Hill Buildings, E.C.1.
- Butler & Crispe, Clerkenwell Road, E.C.1.
- Christy, Thomas & Co., Old Swan Lane, E.C.4. (Also December 29-30 for stocktaking.)
- Clayton Aniline Co., The, Ltd., Southwark Street, S.E.1.
- Coates & Cooper, Ltd., Clerkenwell Road, E.C.1.
- Continental Laboratories, Ltd., Marsham Street, S.W.1. (Urgent orders only on Saturday morning, December 23.)
- Crookes Laboratories, The (British Colloids, Ltd.), Gorst Road, Park Royal, N.W.10. (Urgent orders from Mr. R. Woolby Brooke, 19 Gloucester Road, S.W.7.)
- Cussons, Sons & Co., Ltd., Kersal Vale, Manchester (Friday evening, December 22).
- Davenport, J. T., Ltd., Union Street, S.E.1 (from Friday, December 22, to Thursday, December 28).
- Dearborn (1923), Ltd., Gray's Inn Road, W.C.1 (Friday evening, December 22).
- Eno, J. C., Ltd., Piccadilly, W.1 (Friday evening, December 22).
- Evans Sons Lescher & Webb, Ltd., Bartholomew Close, E.C.1.
- Ford, T. H., Ltd., Falcon Square, E.C.1 (Friday evening, December 22).
- Gale & Co., Ltd., Bouverie Street, E.C.4.
- Goodall, Backhouse & Co., Leeds.
- Guest, T. & Co., Ltd., Manchester.
- Heward, The R. H., Co., Twickenham.
- Hewlett, C. J., & Son, Ltd., Charlotte Street, E.C.2 (also December 27-29 for stocktaking, urgent orders only executed).
- Hoffmann-La Roche Chemical Works, The, Ltd., Bowes Road, N.13. (Urgent orders day and night from John Bell & Croyden, 50 Wigmore Street, W.1, and Mr. R. W. Brooke, 19 Gloucester Road, S.W.7.)
- Horner, L. A., & Sons, South Tenter Street, E.1 (Friday evening, December 22).
- Hough, Hoseason & Co., Ltd., Manchester.
- Howards & Sons, Ltd., Ilford (also December 29 and 30 for stocktaking).
- Johnson & Sons, Manufacturing Chemists, Ltd., London, N.W.4 (Friday evening, December 22).
- Kerfoot, Thomas & Co., Ltd., Bardsley and London (Friday evening, December 22).
- Lofthouse & Saltmer, Ltd., Church Lane, Hull.
- Macfarlan, J. F., & Co., Bethnal Green Road, E.1 (Friday evening, December 22).
- Mallagh & Co., London, S.E.1 (Friday evening, December 22).
- Mawdsley, D., & Co., Ltd., Manchester.
- Maw, S., Son & Sons, Ltd., Aldersgate Street, E.C.1 (Friday evening, December 22. Stocktaking on December 29-30).
- May, Roberts & Co., Ltd., Clerkenwell Road, E.C.1.
- Meggesson & Co., Ltd., New Church Street, S.E.16.
- Menley & James, Ltd., Hatton Garden, E.C.1 (Friday evening, December 22.)
- Morny, Ltd., New Burlington Street, W.1.
- Morson, Thomas, & Son, Ltd., Gray's Inn Road, W.C.1 (Works and warehouse from Friday evening, December 22, to Monday morning, January 1.)
- Napp, H. R., Ltd., Clement's Inn, W.C.2. (Urgent orders can be executed by John Bell & Croyden, 50-52 Wigmore Street, W.1.)
- National Drug Industries, Ltd., Emmott Street, Mile End, London, E.1.
- Oppenheimer, Son & Co., Ltd., Clapham Road, S.W.9.
- Paines & Byrne, Ltd., Bilton Road, Perivale (Orders for Pabyn products from John Bell & Croyden, Wigmore Street, W.1).
- Parke, Davis & Co., Beak Street, W.1.
- Potter & Clarke, Ltd., Artillery Lane, E.1.
- Reuter, R. J. Co., Ltd., Carter Lane, E.C.4.
- Sangers, Ltd., Euston Road, N.W.1.
- Savory & Moore, Ltd., and Pharmaceutical Products, Ltd., Lawrence Road, N.15 (John Bell & Croyden, continuous day and night service maintained throughout the holiday for urgent requirements).
- Schering, Ltd., High Holborn, W.C.1.
- Smith, T. & H., Ltd., Christopher Street, E.C.2 (Friday evening, December 22).
- Smith & Sons (Norwich), Ltd., Magdalen Street, Norwich (also December 27 and 28 for stocktaking, urgent orders only).
- Solport Brothers, Ltd., Goswell Road, E.C.1 (Friday evening, December 22, also December 29 and 30 for stocktaking).
- Sparks, White & Co., Ltd., East Tenter Street, E.1.
- Stevenson, H. E., & Co., Ltd., Pancras Lane, E.C.4. (Friday evening, December 22).
- Thompson & Capper Wholesale, Ltd., College Lane, Liverpool (Friday evening, December 22).
- Tompkins, James, Ltd., City Road, E.C.1.
- Toogood, William, Ltd., Southwark Street, S.E.1 (also December 28-29 for stocktaking).
- Tyrer, Thomas, & Co., Ltd., Stratford, E.15 (Friday evening, December 22).
- United Chemists' Association, Ltd., Cheltenham and London (Friday evening, December 22).
- Viscose Development Co., Ltd., Woldham Road, Bromley, Kent (Friday evening, December 22).
- Wilcox, Jozeau & Co. (Foreign Chemists), Ltd., Great St. Andrew Street, W.C.2.
- Willows, Francis, Butler & Thompson, Ltd., Shackwell Lane, E.8.
- Winchester Manufacturing Co., Ltd., The Square, Isleworth (Friday evening, December 22).
- Woolley, James, Sons & Co., Ltd., Manchester.
- Wright, Layman & Umney (1932), Ltd., Southwark Street, S.E.1 (also December 28-29 for stocktaking).

The offices of THE CHEMIST AND DRUGGIST will be closed on December 23-26 inclusive.

Business Changes

MR. J. I. WILLIAMS, chemist and druggist, has opened a pharmacy at Eirianfa, Dolwyddelen, Nr. Festiniog.

TAYLORS' DRUG CO., LTD., have acquired the business of Dunsbys (Mr. David Dunsby, chemist and druggist), 202 North Street, Leeds.

ON and after December 18 the address of Schering, Ltd., will be 188-192 High Holborn, London, W.C.1. Telephone: Holborn 9345.

MR. G. H. LANGLEY, chemist and druggist, has purchased the business of Mr. A. C. Bowden, chemist and druggist, Athelstan Road, Harold Wood, Essex.

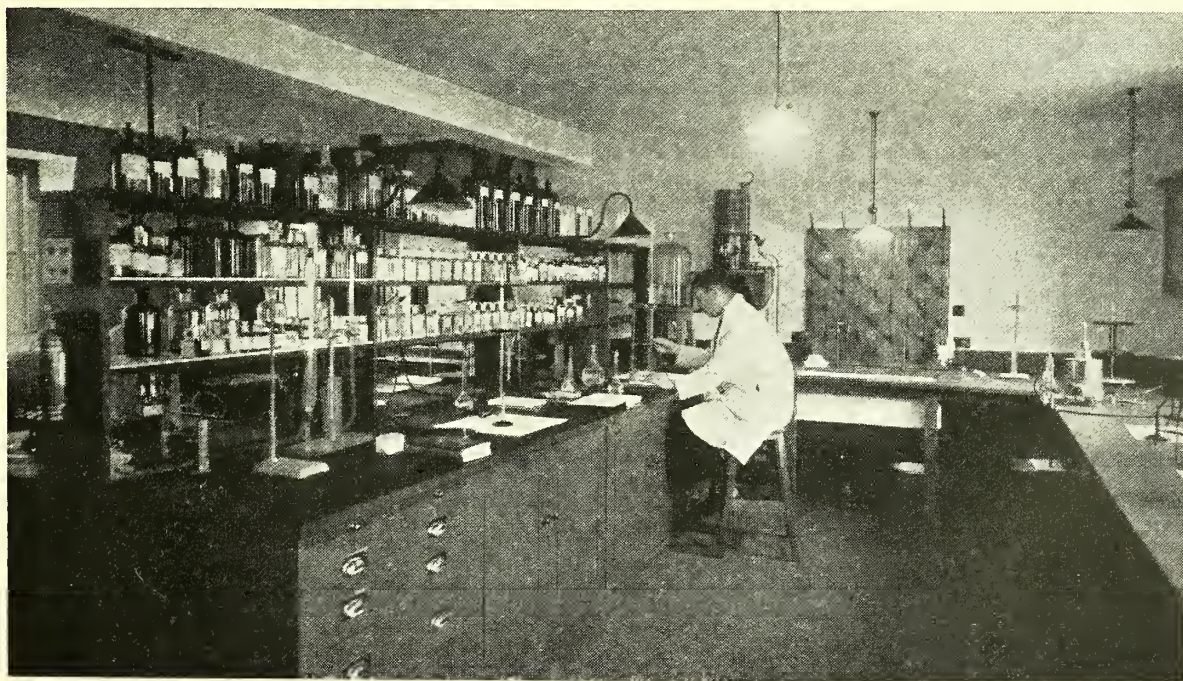
The Pharmacopœia Commission Laboratory

THE minutes of the recent session of the General Medical Council contain two significant references to the Pharmacopœia Commission. One of these is a passage in the president's address, quoted textually in our issue of December 9 (p. 695): Sir Norman Walker remarked that thanks to the happy relations existing between the three bodies working under one roof, it had been possible to establish a laboratory where most of the routine research work of the Commission would be done under the supervision of its very efficient secretary. (The third body referred to by the president is the Dental Board.) This recognition of the standing of the Pharmacopœia Commission is as gratifying to pharmacists as the tribute to the secretary, Dr. C. H. Hampshire—who, incidentally, is chairman of the British Pharmaceutical Conference for a second year. The other reference occurs in Appendix XIII, where the cost of converting and fitting up a suite of rooms, released for the purpose by the Dental Board, is estimated at not more than £1,250, a sum indicating an adequate initial instalment of apparatus without a lavish outlay on experimental luxuries.

This new departure of the Pharmacopœia Commission is an event of the first importance. In the past, pharmacists—and especially those in touch with analytical research and practice—have from time to time had an uneasy consciousness that the authority of pharmacopœial monographs was limited by the circumstance that the compilers could seldom command the collaboration of acknowledged experts in the respective subjects reviewed. Such men, obviously, could not be expected to devote themselves to the elucidation of specific

problems as a pastime. A research assistant to the Commission was appointed in 1929, and has worked successfully, by courtesy of the Pharmaceutical Society, in their Codex Research Laboratory. Research in matters arising out of the revision of the British Pharmacopœia now enters on a new phase. Dr. Hampshire's distinctions in science and in medicine, and his record as editor of the "Year-Book of Pharmacy" and of its quarterly successor, are a sufficient guarantee that the Commission has selected for its laboratory a director who will view every problem in its relation to every other problem, and will apportion to each its proper importance in the general scheme of research.

The space at the disposal of the Pharmacopœia Commission consists of a main (and sufficiently spacious) laboratory, a dark room containing a polarimeter, a storeroom, and a study that also forms the balance room. The research to be undertaken includes any matter in chemistry, pharmacy and pharmacognosy pertaining to the British Pharmacopœia as it is, or as it may become, but biological work is not at present contemplated. As recorded in our "Personalities" section in this issue, Mr. G. R. Page, Ph.C., is the research assistant recently appointed by the Commission; but in so important a laboratory provision has, as a matter of course, been made for several workers. The benches are for the most part of teak, with the alternation of uraltite for heating apparatus and for blowpipe work, and beneath them there is ample cupboard room. Electric power is installed at numerous points; the heating apparatus, too, is mostly of the electrical type—the water baths, for example. On the chemical side the

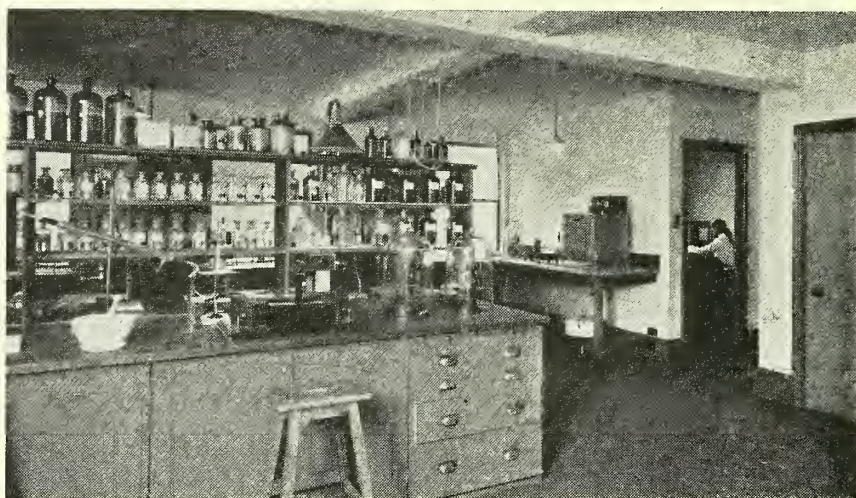


THE LABORATORY OF THE PHARMACOPŒIA COMMISSION

apparatus includes tintometer, refractometer, colorimeter, ultra-violet light apparatus, muffle furnace and so forth. A special note should be made of the polarimeter, which can be used with either the sodium or the mercury vapour light. The sodium light, generated by electric power, is, we believe, generally preferred to any other by those who have experienced its convenience, it being rapidly started and constant in illumination. The apparatus of a pharmaceutical nature comprises percolators, disintegrator, autoclave, refrigerator and other necessities of modern research. The balances and microscopes, almost taken for granted in this connection, are of the best types.

This splendidly equipped laboratory, situated on the top floor of 44 Hallam Street, is conveniently near the secretary's office, which in its turn is close to the board room of the Pharmacopœia Commission. Dr. Hampshire occupies a large and pleasant room, with glass-fronted

bookcases well filled with works of reference. Here he will be able to review results obtained in the research carried out under the direction of the Commission and



ANOTHER VIEW IN THE LABORATORY, SHOWING THE STUDY

to carry out the fresh developments planned by the Commission to convert the Pharmacopœia into a book completely abreast of accepted scientific opinion.

Apprenticeship Discussed at Glasgow

A MEETING of the members of the Glasgow and South-Western Scottish Branch of the Pharmaceutical Society was held on November 29, Mr. W. J. Moffat (chairman) presiding. The chairman explained that the meeting had been called at the request of the Council, which had asked for expressions of opinion on the suggested regulations governing the training of apprentices in shops (referred to in the *C. & D.*, December 2, p. 675). Mr. John H. Ramsay (late chairman of the Board of Examiners in Scotland) addressed the meeting on

Apprenticeship: A Survey

MR. RAMSAY asked his audience to accompany him on a survey along the road which pharmacy in Scotland had travelled. In 1900 (and until 1925), he said, apprenticeship on its lowest level was often not even a verbal agreement, but might consist of the engagement of a young person who later showed some aptitude, passed the preliminary examination, and so entered the craft. The conditions of shop life from the point of view of practical pharmacy were, on balance, better than to-day, to the extent that pharmacists made more galenicals. In every other respect, however, shop conditions were infinitely worse than they were to-day. W. L. Currie, about 1905, introduced the idea of a compulsory curriculum which began to materialise in 1916. In 1919 a curriculum was formulated and became compulsory. After July 1, 1926, it became necessary to register apprentices before apprenticeship became valid, and articles of pupilage were signed and endorsed by the Society. The written papers were introduced in 1929, and the result of their advent had been the separation of the Preliminary Scientific from the Qualifying examination and compulsory completion of the first before proceeding to the latter with the extension of the period of training from one to two academic years. He compared the following Edinburgh pass figures:—1933,

October, 58.9 per cent., July, 46.7 per cent.; 1923, 54 per cent.; 1913, 55.4 per cent.; 1907, 56 per cent. Was this, he asked, a satisfactory position? Turning to the proposals, these were first given the air at the Aberdeen Conference. To obtain a proper perspective they must attribute altruistic and idealistic motives to the author of the paper. The principal political argument used was that since hospitals and wholesale laboratories had a provisional or conditional approval for the training of apprentices this arrangement should also apply to shops. Historically and traditionally pharmacists keeping open shop have had the right to accept and train apprentices. When the articles of pupilage were introduced the above-mentioned interests were not without representation on the Council, but, whatever the reason, these institutions were left out of the regulations for apprenticeship training. As a result of representation made to and on the Council of the Society they have now been given conditional approval. Pharmacists keeping open shops never were so restricted. To use this, therefore, as a reason for the approval and inspection of shops is logically and forensically unsound, being founded on wrong premisses and buttressed by non-relative comparisons.

PROPOSALS EXAMINED

Mr. Ramsay then asked them to examine the proposals. It was proposed, he said, to include them in the articles of pupilage. This was a legal document and gave the apprentice, through his parents, or guardians, a right at common law if the other party to the agreement failed in his obligations. Pharmacists keeping open shop already had inspectors for several purposes. Must they, he asked, add another? These inspectors would, of necessity, be paid, and he suspected the pharmacists would have the privilege of doing so. An important point, however, in this connection was that the approval of a shop and periodic inspection would be *prima facie* evidence of fulfilment of the bond, and inspectorship

from this point of view might mean an element of protection. In paragraph 2 (iii a) "common use" must be definitely defined. What was "common use" in one part of the country may not be so elsewhere. Paragraph 2 (iii b) was archaic, and if at all necessary needed rewording, but, if the conditions of the next paragraph were carried out it became redundant. Paragraph 2 (iii c) must be defined. Paragraph 2 (v) was probably the most controversial. In conclusion Mr. Ramsay gave what he considered the minimum adjustments they might make in the near future:—(1) There should be a normal 4-years' apprenticeship, with a reduction of a period, say one year, for exceptional circumstances. (2) There should be a closing of the gap between apprenticeship and the Qualifying examination; (a) Dr. Todd's scheme . . . the Leicester apprenticeship scheme did this; (b) the taking of the Preliminary Scientific examination before apprenticeship also solved the problem. (3) The formulation of simple general rules which would be universally accepted. (4) The question of inspection.

Dr. J. P. Todd next addressed the meeting on

Apprenticeship: Suggestions

Dr. TODD said: After April 1, 1936, new regulations for the Preliminary examination will come into force. It will be necessary for the apprentice to be in possession of the Higher Leaving certificate, the University Matriculation examination, or their equivalents. When discussing the question of apprenticeship, our remarks should be based on the new regulations. Most of us are agreed that the Preliminary Scientific examination (chemistry, physics and botany) should have been passed before commencing apprenticeship. This would lead to the abolition of the highly unsatisfactory evening classes, which seldom achieve their purpose of providing a sound education and seldom enable the student to pass the examination. The present-day conditions in pharmacy force the student who takes evening classes to work hard all day and rush with diminished energy and fagged brain to attend classes.

The leaflet from the Pharmaceutical Society has followed closely on the lines suggested by Mr. Adams at Aberdeen in 1932, but I think it will not prove a solution of the apprenticeship question, although it might help. Mr. Adams laid down the following broad lines regarding the conditions which should be complied with before an establishment should be approved for the training of apprentices:—(1) General environment; (2) nature of the business; (3) equipment. Unfortunately many pharmacies in this area, owing to economic and other reasons, would find it difficult to provide facilities on the lines suggested. It is equally unthinkable that these businesses should be prevented from taking apprentices: such prohibition would, I fear, lead to graver disaster due to the growth of an army of unqualified people which would constitute a menace to proper pharmacy and probably increase the number of drug-store proprietors.

The tendency in the last few years has been for the prospective Chemist and Druggist candidate to come to classes showing very little indication of having received much in the way of apprenticeship. Can we reverse this trend? I need not say that the function of the classes is to build a superstructure on a foundation already well laid. The student should already possess considerable familiarity with the making of pharmaceutical preparations, and also possess manipulative skill. When this knowledge and skill is not gained during apprenticeship, the normal functions of the classes have to be modified in an attempt to make good this defect. This involves a great deal of repetition which might well be avoided. Revision of work, in so far as it is necessary to give the student the familiarity and skill which should have already been acquired, is educationally unsound. If this is not done the number of passes in the Qualifying examinations is seriously reduced. In other words, faulty apprenticeship reflects on the local college. Since this is the trend of affairs, can some form of compromise not be effected? We fully realise the difficulties under

which the modern pharmacy is carried on, especially in a big town such as this. Since the tendency has been to throw the full onus of training on the colleges, can we not produce a scheme which will take advantage of the best which is to be gained from the training in each, the shop and the college? Let the Society draw up a list of approved pharmacies and specify a course of work which is to be carried out during apprenticeship. I would not approve of unsuitable pharmacies. This course would include simple galenicals, pills and suppositories, such as one normally prepared in an ordinary good-class business. The colleges with the special facilities, including the use of duty-free alcohol, can act like the wholesaler, and the apprentice can carry out the various types of preparations, extractions, distillations and levigations which are too complicated for the back shop. A course of Latin during apprenticeship could also be called for. The colleges could also carry out the training in the recognition of crude drugs, chemicals, etc., in pharmaceutical Latin, and forensic pharmacy. The master could deal with the keeping of records, translation of prescriptions and storage of drugs.

PHARMACOPŒIAL CHANGES

It must have occurred to most of us that the introduction of the 1932 Pharmacopœia was an event of far-reaching importance to retail pharmacy. The existence of the large-scale manufacturer is recognised, and substances were introduced which we cannot hope to make in the shop. This could not be said of the 1914 B.P. The 1932 Pharmacopœia includes preparations and also processes, such as sterilisation, which require additional training before they can be carried with the traditional freedom from risk which one associates with pharmacy. In my opinion the work outlined in the syllabus for the diploma in biochemical analysis should be part of the routine training for the pharmacist. If we are to improve our position or even to hold our place in the future a more extended training for the chemist and druggist will be necessary. The problems connected with sterilisation, bio-assay and biochemical analysis will have to be dealt with and not treated as though they belonged to a different sphere. This can only be done if time is available. The pharmacist may not be asked to prepare vaccines and serums, but he must understand their uses and how they must be handled and stored. He ought to be able to guide the already harassed medical man who is also becoming overwhelmed by the increasing complexity of modern medical practice.

I also believe that we must make a strenuous effort to retain for pharmacy much of what really belongs to it. I am firmly of the opinion that, provided we educate ourselves up to it, many operations which are at present carried out in an empirical way by medical men, only because they can find no one to relieve them of the burden, will ultimately pass into the hands of the trained pharmacist. The method of overcoming our difficulties in the training of apprentices which I will suggest would be a stepping-stone to a more up-to-date course for the Chemist and Druggist examination, the latter to cover much new ground. I would advocate training on a system whereby the apprentice can carry out as many of the common operations as can be done in the shop and the others in the schools. Here is a suggestion:—

1. That we approve in principle the recommendations as laid down by the Council of the Pharmaceutical Society's leaflet with the exception of the clauses relating to inspectors and non-indentured apprentices.
2. The indenturing only of apprentices who have passed the Preliminary Scientific examination.
3. The first two years of apprenticeship to be spent in acquiring the atmosphere of the pharmacy (polishing bottles, receiving training in shop routine, elementary pharmacy, etc.).
4. The last two years to be spent partly in the college and partly in the shop.

Lastly I would again emphasise the danger of regulations which, owing to their severity of inconvenience, prevent employers from taking apprentices at all.

(To be continued.)

Births

Notices for insertion in this column must be properly authenticated.

DISHMAN.—On December 10, the wife of G. A. C. Dishman, chemist and druggist, Hyde, Cheshire, of a son (Ian Tawse).

EVANS.—On December 9, the wife of R. A. Evans, chemist and druggist, 514 Holloway Road, London, N.7, of a son.

Marriages

CLAYTON—HEY.—At All Saints' Church, Pontefract, on November 29, Frank Smith Clayton, chemist and druggist, to Doris Hey.

MASTERTON—BRIGGS.—At St. Mary's Church, Whitkirk, Leeds, on December 4, by the Rev. W. Warburton, Francis Douglas Masterson (Masterson's Pharmacy, Sherburn-in-Elmet), to Annie May Briggs, Whitkirk.

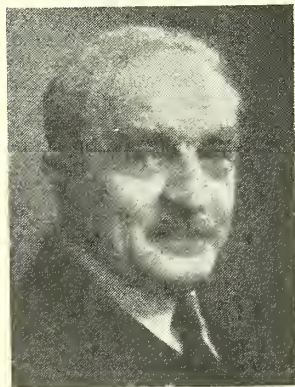
Deaths

BOWDLER.—On November 25, Mr. Ernest Harper Bowdler, chemist and druggist, 17 Market Street, Lichfield, aged sixty-six. Mr. Bowdler went to Lichfield four years ago after being in business at Wolverhampton for thirty-five years. He leaves a widow, three sons and a daughter.

COLLIS.—At 31 Cabra Road, Dublin, on December 11, Mr. Richard Collis, L.P.S.I., late of Phibbsborough, North Circular Road. Mr. Collis passed the Licence examination in 1898.

HARRIS.—On November 28, Mr. William John Harris (Harris Cash Chemists, Ltd., 133 Clifton Street, Cardiff). At the funeral, which took place on December 1, at Llanishen Cemetery, the National Pharmaceutical Union's local Branch was represented by Messrs. Trevor Thomas and J. T. Day, and the Cardiff Pharmacists' Association by Messrs. E. Fox, S. H. Willis, Fred Taylor and H. F. Davies.

HUMPHREY.—At his residence, "Southview," 21 Northwick Avenue, Harrow, on December 11, Mr. John Thurlbeck Humphrey, Ph.C., F.I.J., past-chairman of the British Pharmaceutical Conference, aged seventy-one. Mr. Humphrey served a five years' apprenticeship at Sunderland, where he subsequently assisted in forming the Sunderland Chemists' Assistants' and Apprentices' Association. For ten years he was at Sheffield; he passed the Minor examination, after self-tuition, while in business there, and studied practical biology at Firth College, proceeding in due course to the Major examination. During this period he held office as secretary of the Sheffield



Mr. J. T. HUMPHREY, Ph.C.

Pharmaceutical and Chemical Society, and was a lecturer and secretary at the Sheffield School of Pharmacy. He had already attracted the notice of the late Dr. B. H. Paul, editor of "The Pharmaceutical

Journal"; and on the death of Mr. Passmore in 1892 he was asked to follow him as sub-editor. Mr. Humphrey was editor from the time of Dr. Paul's retirement to the end of 1915. He was joint author, with the late Mr. Edmund White, of "Pharmacopedia," first published in 1898; and later he produced the "Pharmaceutical Journal Formulary," the "British Pharmaceutical Codex" and the "Pharmaceutical Pocket Book," in addition to minor publications. He was associated with the late Mr. Charles Thompson, of Birmingham, in drafting a scheme of pharmaceutical federation; he afterwards assisted the late Mr. G. T. W. Newsholme, of Sheffield, in elaborating plans for improving local organisation. From the inception of the National Health Insurance scheme he was actively engaged in many kinds of work connected with the details of its functioning, and in particular served for nearly twenty years as a member or officer of the Middlesex Pharmaceutical Committee. Mr. Humphrey has at various times been president of the South-West London, Middlesex and Harrow Chemists' Associations, chairman of the London Pharmaceutical Committee, a member of the Committee of the North London Pharmaceutical Association, secretary of the Progressive Pharmacy Club, and W.M. of the Galen Lodge of Freemasons. During the European war he served in the National Guard and became a temporary lecturer at the London College of Pharmacy. He was for three years on the English Board of Examiners of the Pharmaceutical Society, retiring on account of pressure of work in the manufacturing house with which he was then connected. In 1926 Mr. Humphrey was elected to the Council of the Pharmaceutical Society, and in 1930 he was chairman of the British Pharmaceutical Conference. We have left to others the duty of placing on record the many attractive facets of his personality; but we may add, in a word, that we shall greatly miss him as a contributor and as an occasional visitor at 28 Essex Street. Mr. Humphrey is survived by a widow, three sons and two daughters. We have received the following message: "Mrs. Humphrey wishes to take this opportunity of thanking many kind friends for their tribute of love and sympathy in the loss of her dear husband, John Thurlbeck Humphrey."

The funeral took place at the Golders Green Crematorium on December 11, when a large congregation assembled to pay the last tribute of respect. The family mourners were Mrs. Humphrey, Mr. Wilfrid Humphrey (son), Mr. Bernard Humphrey (son), and Miss Marie Humphrey (daughter). Among others present were Mr. John Keall (president of the Pharmaceutical Society), Mr. E. Saville Peck (vice-president), Mr. A. H. Jenkin (treasurer), Mr. Freke, Mr. Beardsley, Mr. Skinner and Mr. Wells (members of the Council), Mr. H. N. Linstead (secretary), Professor J. H. Burn (Dean of the College of the Pharmaceutical Society), Dr. C. H. Hampshire and Mr. C. E. Corfield (representing the British Pharmaceutical Conference), Mr. F. W. Adams (representing the Harrow Branch of the Pharmaceutical Society), Mrs. Herbert Skinner (representing the National Association of Women Pharmacists), Mr. F. Browne (representing the West Middlesex Chemists' Association), Mr. W. Shakerley (president, South-West London Chemists' Association), Mr. G. F. Weiss (president, North London Pharmaceutical Association), Mr. J. P. Gilmour, Mr. and Mrs. Peter Irvine, Mr. and Mrs. J. C. Young, Mr. S. H. Bately, Mr. H. Jephcott (representing the Glaxo Laboratories), Mr. Hugo Wolff (representing the Middlesex Pharmaceutical Committee), Mr. A. Nathan (chairman, Joseph Nathan & Co., Ltd.), Mr. W. Eyre and Mr. G. Hart (representing St. Clement's Press), Mr. G. P. Forrester (Editor of THE CHEMIST AND DRUGGIST), Mr. W. K. Fitch (Editor of "The Pharmaceutical Journal"), Mr. G. A. Tocher (representing the London Pharmaceutical Committee), Mr. H. F. Simnett (representing the Galen Lodge).

We have received the following appreciations:—

From Mrs. Irvine

The passing of John Humphrey has come so suddenly that it is hard for his friends—aware as they were of the serious heart trouble from which he suffered—to realise

that after less than three days' illness he has passed into the Beyond, leaving a place in their hearts and in the ranks of pharmacy that will not be filled in this generation.

In the days when he was editor of "The Pharmaceutical Journal" many pharmacists throughout the country learnt by correspondence to rely upon him for advice and help in solving their difficulties and problems, and felt he was indeed their friend; to those fortunate enough to enjoy his personal friendship he was a tower of strength, ever ready to help by placing at their disposal his unique literary and scientific knowledge. Many who to-day are mourning his passing feel they owe much of any success they have had in life to his timely guidance and help in early days. He was a counsellor whose advice was good and his wide experience of men and affairs, his profound knowledge of things pharmaceutical, his sympathetic outlook, his balanced judgment, and above all his capacity for loyal friendship endeared him to his friends. He was unselfish to a degree; all his work and thought was to advance and help the practice of pharmacy; worldly benefit or material gain to himself never entered his mind. In losing him pharmacy has lost a protagonist whose exceptional knowledge of the foundations of pharmacy would have been invaluable to his colleagues at this critical time of transition.

A last happy memory of him is in his garden amongst the flowers he loved so well and his pleasure at the genuine admiration evoked by the lovely vision of his beautiful roses and blue delphiniums; to some extent, he said, the hours he spent in the peace and beauty of his garden compensated for the active life he had to forgo. "His life was gentle," too gentle and sensitive to stand sometimes the hard knocks of a selfish world; but his friends can have nothing but gentle happy memories of "J. H."

From Dr. G. A. Grierson

It is just on fifty years since John Humphrey and I foregathered in Sheffield. We had both drifted from the North to seek our fortunes in a wider sphere, but science and literature attracted us more than commerce. Those were the days when Spencer and Huxley and Kingsley were the heroes of the younger generation. We used to read and discuss the works of these giants of the Victorian era, and under the influence of a mutual friend, Snaith, our lighter moments were devoted to Shelley and Keats, Wordsworth, Matthew Arnold and Ruskin. Field botany and geology took us on many happy walking tours in the Peak district, and in those days it was no light matter reaching the open country from the heart of Sheffield. Even an excursion to the Ruskin museum was an undertaking, but looked upon as a necessary tribute to the master.

We lived in the same rooms for some time, and ultimately were fortunate in securing a furnished house in the country, where the three of us spent many happy week-ends: a week-end then extended from ten on Saturday night to nine on Monday morning, when the treadmill resumed its activities. Like all young thinkers of the era we were Socialists at heart (but not politicians); and I remember well entertaining Prince Kropotkin and Edward Carpenter to a spartan supper, and very charming men we found them.

The inspiration of the late Mr. G. T. W. Newsholme led to our doing much work in connection with the Sheffield Pharmaceutical and Chemical Society and the Microscopical Society, and a School of Pharmacy was initiated where we functioned as honorary lecturers. About this time we made the acquaintance of Dr. Paul (editor of "The Pharmaceutical Journal"), and through his influence and that of Mr. Peter MacEwan (editor of THE CHEMIST AND DRUGGIST), an old friend of my Edinburgh days, our "cacothetical scribbles" was directed into more remunerative channels. Paul soon discovered Humphrey's literary talent and offered him the assistant editorship of "The Pharmaceutical Journal." Since that time our paths have diverged widely, but I have no doubt that the leaders in "The Pharmaceutical Journal" would not lack distinction under Humphrey's editorship.

From Mr. Herbert Skinner, Ph.C., past-president of the Pharmaceutical Society, and past-chairman of the British Pharmaceutical Conference

The passing of John Humphrey brings back a flood of memories: indeed, it can be said the story of British pharmacy can only be understood fully by studying the years of his official life. It was in 1888 that I first met him at Sheffield, when he was managing a business and spent some of his evenings educating the youthful mind in the art of materia medica. That love of the youngsters continued with him until the end. Our pathways diverged for several years: he joined the staff of "The Pharmaceutical Journal" in London under Dr. Paul while I still wandered in the provinces. We met again in the late 'nineties, in the slight disturbance over the 1898 Act, but it was not until after the 1908 Poisons and Pharmacy Act that we came again together to form a friendship which brought into being a richness of thought and feeling between us cherished by both alike. It is difficult to speak of our association during the last twenty-three years without being conscious of the inadequacy of words to express our mutual confidence in each other. From 1911 to 1915 he passed through difficult years which tintured the whole of his after life. During the preceding years the present Pocket Book and Codex of the Pharmaceutical Society were thought out from careful study of the past and a keen appreciation of and adaptation to the needs of the hour. From 1916 onwards he laboured for pharmacy as a free lance, and in my opinion became more effective on account of his depth of knowledge and understanding. Since 1916 he had been to me a constant friend and companion in the common cause of service to pharmacy.

John Humphrey was a logical, nay, almost a meticulous interpreter, and some of his keen thrusts and cutting analyses of the utterances of those guilty of confused thinking were a joy to non-participants. To appreciate his career to the full would be a labour of love—perhaps reserved for less strenuous days than have yet fallen to my lot. The two phases stand out quite clearly: his nearly forty years' official connection with the Society, during half of which he was an officer and the other half an elder statesman, provide us with an epitome of the development of British pharmacy. He passes out at the beginning of a new era: whether it will be better or worse depends largely upon the youth of to-day, the youth he loved so much. One of the master workers is no more; his works remain, and if he was anxious about the reconstruction of some of the books it was because he was jealous to preserve them against what he thought were iconoclastic hands. His criticism arose out of a great love and enthusiasm to preserve that which he considered most worth while. In his home life he always had a safe refuge and comfort from public strivings. He gave to pharmacy a life of service, and placed within its hands the profitable results of his foresight and labours. The Society reaped where he sowed. The circle of his friends who mourn his loss is all-embracing of those who love their calling. As chairman of the British Pharmaceutical Conference he put forth the view of practising pharmacists with charming lucidity, and gave one more inspiration to youth, for he remained young in spirit. Pharmacy has lost one of its great men; and I lose a friend and companion who had that intangible something within him which surpasses words but breathes the eternal spirit.

From Mr. H. Antcliffe, Member of the Council of the Pharmaceutical Society

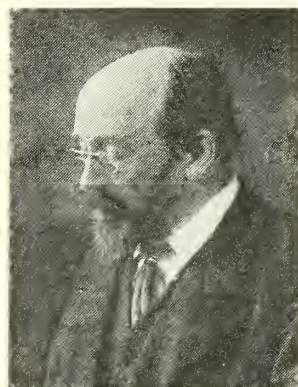
Mr. Humphrey came to Sheffield in 1887 to manage the business of Mr. John Clark of West Street. He became at once an active pharmaceutical worker, along with Mr. (afterwards Dr.) Grierson; the two lived together at Loisewood, and did their own "housekeeping." Mr. Humphrey came into close touch with the late Mr. Newsholme. When I commenced my pharmaceutical training, Mr. Humphrey was the lecturer in materia medica at the local School, where I attended classes. We came to look on him not only as a teacher but also a true guide and friend. His friendship has for these many years been a great joy and help to me.

From Mr. Hugo Wolff

"John Humphrey, gentleman" is, I think, the most fitting epitaph for my dear old friend. I first met him in 1913 when I was young, enthusiastic and in my small way endeavouring to put the pharmaceutical world on a better footing. He listened to what I had to say in his quiet way, and said: "If you feel sure you are right, push forward as hard as you can, but take care to avoid hurting other people." That was typically John Humphrey. Those who knew him intimately will appreciate that had he been less mindful of the feelings of others, had he been less unselfish, or had he sought material gain in everything that he undertook, he would have been a very prosperous man. He preferred, however, the welfare of his colleagues, and no man in pharmacy was more loved and esteemed than John Humphrey. He became associated with Joseph Nathan & Co. in 1915, and during the troublous years of the Great War he gave to my firm and myself the very best that he could give. He endeared himself to the staff, and when his time came to retire from active service he left behind him a host of friends and much valuable evidence of his foresight and painstaking care in business.

His association with the Middlesex Pharmaceutical Committee was one of hard work, enthusiasm and loyalty to his colleagues; but the outstanding feature of his life was, in my opinion, that spirit of kindly tolerance which he displayed towards those who, mainly through their own shortcomings, failed to perceive his worth and who perhaps unwittingly withheld from him much of the reward that he merited. John Humphrey's attitude when discussing past history was clear-cut and defined. He always said, "Let us remember the best of everyone; the worst one must endeavour to forget." I shall miss him very much; I shall always hold him in affectionate remembrance, and to me he will always be "John Humphrey, gentleman."

WHITLA.—In Belfast, on December 11, after a long illness, Sir William Whitla, M.D., LL.D., D.Sc., L.P.S.I., aged eighty-two. Sir William Whitla was born at Monaghan, and was educated at Queen's University, Belfast, where he took the M.D. degree with highest honours, gold medal and special commendation in 1877. He was registered as a Licentiate of the Pharmaceutical Society of Ireland two years later; his only surviving brother, Dr. Meredith R. Whitla of Monaghan, became a pharmaceutical chemist of Ireland before proceeding to qualify as a medical practitioner. Sir William was elected an honorary member of the Pharmaceutical Society of Great Britain in 1899; he was knighted in 1902, and was one of the members of the Committee appointed to supervise the compilation of the British Pharmacopœia, 1914. For many years he was Professor of Materia Medica and Therapeutics in Queen's University, Belfast, and represented the University in the Imperial Parliament from 1918 until 1923. He was a past-president of the British Medical Association and of the Ulster Medical Society, to which he presented the Medical Institute in College Square North. Distinctions came to him from various universities in this country and abroad, and he was Honorary Physician in Ireland to the King. He took a leading part in religious and philanthropic work with his wife, who predeceased him by a few years. In a characteristic article specially contributed to THE CHEMIST AND DRUGGIST in 1929, Sir William set forth the origin of his "Materia Medica" (now in its twelfth edition). His "Dictionary of Treatment" has reached a seventh



SIR WILLIAM WHITLA, M.D.

edition in England and a sixth edition in China, and has attained a considerable circulation in the Dominions and in the United States. Lord Daryngton contributed an appreciation, from which we take the following sentences, to "The Times" of December 13:—

"In reference to your accounts of the distinguished career of Sir William Whitla, may I add a further testimony by emphasising some of his characteristics—unquestionable faith, genius for friendship, affection for his particular friends, sense of humour, and knowledge of art? Many of his old Parliamentary colleagues can visualise him sitting in his chair at St. Stephen's Club, smoking his pipe, the centre of a group, enjoying his wit, listening to his stories and reminiscences in regard to the political life of Ulster."

HURLSTONE.—On December 13, after a short illness, Mr. Herbert Alfred Hurlstone, Ph.C., chief of the buying department, Burroughs Wellcome & Co., London, E.C.1. Mr. Hurlstone, who was born in 1893, served his apprenticeship with Davies Sons & Co., Derby, and was assistant to Cope & Taylor, Derby, from 1912 to 1914. He passed the Major examination in July 1915, and for a time was pharmacy demonstrator at the Chelsea Polytechnic. Later in the same year he joined the staff of John Bell & Croyden, Ltd., Wigmore Street, and eventually became pharmacy manager. He remained in their service until he joined the London staff of Burroughs Wellcome & Co. in November 1928. Mr. Hurlstone was a member of the Forum Lodge and the Hegeston Lodge of Freemasons. He leaves a widow and two children.

Personalities

MR. G. R. PAGE, Ph.C., has been appointed to the post of research assistant to the British Pharmacopœia Commission of the General Medical Council. Mr. Page was educated at Ashby-de-la-Zouch Grammar School, where he matriculated in 1925. After serving an apprenticeship with Bullen & Glover, during which period he passed the Preliminary Scientific examination from the Leicester College of Technology, he was employed by A. Procter & Son, Eastbourne. In 1931 Mr. Page took the Chemist and Druggist course in the Department of Pharmacy of the Leicester College of Technology, and, after qualifying, had further experience as assistant with J. Bailey & Co., Cliftonville. He again returned to Leicester in 1932.



MR. G. R. PAGE, Ph.C.

MR. G. W. CRAWFORD, chemist and druggist, managing director of Medical Hall, Ltd., Singapore, who has been home on leave, sailed for the Straits Settlements on December 14.

COUNCILLOR ALBAN ATKIN, chemist and druggist, Hampstead, London, N.W., has been elected to the general purposes committee and the finance committee of the Borough Council.

MR. J. F. SIMON, Ph.C., vice-chairman of the Leeds Branch of the Pharmaceutical Society, was awarded prizes for single, Japanese and pom-pom chrysanthemums at the recent local flower show. During the past five years Mr. Simon has exhibited in sixteen classes and gained thirteen awards.

THE TWO SONS of Mr. J. J. A. Allnutt, chemist and druggist, Brixton, London, S.W., whose respective ages are four and five years, were knocked down by a tram on December 11. After receiving first aid in their father's pharmacy the children were taken to Lambeth Hospital. They are now progressing favourably.

Trade Notes

THE DUBARRY PERFUMERY CO., LTD., Hove, are sending out a highly attractive gifts catalogue.

CHRISTMAS GIFTS are advertised in this issue by the General Optical Co., 120 Clerkenwell Road, London, E.C.1.

PRICE OF INSULIN.—James Woolley, Sons & Co., Ltd., Victoria Bridge, Manchester, announce that the price of Leo insulin will not be increased in spite of the alteration to the tariff.

GLUCOSE CONFECTIONERY.—There has for some time past been a great vogue for glucose, and the incorporation of it in barley sugar makes a pleasant method of administration. Meggeson & Co., Ltd., New Church Street, Bermondsey, London, S.E.16, are offering some high-class products of this nature in various flavours (such as



lemon, lime fruit, peppermint and raspberry), and as they are attractively packed such confectionery is in every way an excellent chemists' line. The barley sugar sticks are made with either 25 per cent. or 85 per cent. glucose, as are also the drops, which, it will be noted, are put up in handy pocket flasks.

ALLNEEDA HAND CLEANING CREAM.—The trade price for the large size tin of this preparation is 6s. 9d. per dozen and not as given in the advertisement of Loxford Laboratories, Ilford, in the C. & D., December 9.

W. B. CARTWRIGHT, LTD., Rawdon, Leeds, have sent us copies of their latest perfumery and drug catalogues, both of which will be posted to any chemist who writes for them. The lists contain some excellent whole-page illustrations.

BISMUTH CARBONATE.—Howards & Sons, Ltd., Ilford, supply bismuth carbonate of three definite standards of density. The light, or 50 oz. (i.e., 1 lb. fills a 50 fl. oz. container), is generally regarded as the most suitable for medicinal purposes. Further particulars are given on another page of this issue.

DELIVERY SERVICE.—Bean's Express, Ltd., 122 Goswell Road, London, E.C.1, undertake a motor delivery service which should be of interest to many manufacturers connected with the drug trade. Briefly, the company have a fleet of vans and lorries any of which can be hired on a yearly contract. The body of the vehicle is built and painted to the hirer's requirements, so that it is impossible to know that the van is not owned by the company whose name appears thereon. Messrs. Bean's Express keep the vehicles in serviceable order and undertake all washing and cleaning. Full details of the scheme, which eliminates all delivery worries and enables

the hirer to calculate how much such service is going to cost him per year, may be obtained on application. If it is desired that a salesman or a specialist in any particular business be the driver of the vehicle, it may be hired without a driver supplied by the proprietors.

POST OFFICE LONDON DIRECTORY.—We have just received a copy of the Post Office London Directory for 1934 (Kelly's Directories, Ltd., 186 Strand, London, W.C.2: cloth 55s., leather 70s.). An important change has been made in the make-up of the volume, the "County Suburbs" sections now being merged with the main section in a single series of headings. The convenience of this innovation will be very marked, as in the past the user of the Directory in a hurry has sometimes been checked by inability to decide in which half of the volume he should look; further, in some cases part of a street or road was contained in "London" and part in its suburbs. This trouble is now abolished. The usual division into a street directory, commercial names, private residents' names, an alphabetical list of trade headings, a legal section and many others has been retained. The borough of Acton and the postal district of Chiswick have been added for the first time, and a new sectional street plan has been specially prepared for this issue. In a word, the 135th year of publication is marked by a considerable increase in the usefulness of this indispensable "Kelly."

Westminster Wisdom

Notes on Parliamentary Matters

INSULIN

The Parliamentary Secretary to the Board of Trade (Dr. Burgin), replying to questions on December 11, said:—A tribunal constituted under the Safeguarding of Industries Act, 1921, as amended by the Finance Act, 1926, has recently decided that insulin and its salts fall within one of the general descriptions of goods scheduled as liable to duty under that Act. Insulin, therefore, now becomes subject to the Key Industry Duty of 33½ per cent. *ad valorem*. No statistics of imports or of world prices of insulin are available, but I am informed that for some time past the retail price of insulin from one maker in this country has been 1s. 8d. per 100 units and from the other makers 2s. a 100 units. An undertaking has been given on behalf of the British makers that their prices will not be raised as a result of the new duty, and my right hon. friend, the Minister of Health, has the question of the price of insulin very much in mind and proposes to watch the position closely. Whether the price can be reduced is a matter which must be considered further, and it shall be so considered.

FLAVOURING ESSENCES

Dr. Salter asked the Chancellor of the Exchequer, on December 6, if he is aware that at Messrs. Woolworth's stores in different towns throughout the country bottles of rum, brandy, and other flavouring essences, intended for human consumption, are being sold to the general public over the counter; that each bottle contains 10 cubic centimetres, or one-third of an ounce, of a so-called flavouring agent; that this agent is composed of 90 per cent. of ethyl alcohol; that the bottles can be obtained by any customer in unlimited quantities; and if he is satisfied that an Excise licence for the sale of intoxicating liquor is taken out in all these cases?

The Financial Secretary to the Treasury (Mr. Hore-Belisha): I am aware that certain flavouring essences are on sale to the public by the firm mentioned, and that the volume of the contents of the bottles is approximately as stated in the second part of the question. I am informed, however, that analysis shows that these essences do not contain any ethyl alcohol. The question of an Excise licence for their sale therefore does not arise. We have had an analysis made in the Government laboratory, and these essences contain only iso-propyl alcohol. The hon. gentleman will be consoled to know that iso-propyl alcohol is deficient in intoxicating properties.

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Festivities

Irish Reunion and Dance

A reunion and dance, under the auspices of Irish Pharmaceuticals, Ltd., was held at the Gresham Hotel, Dublin, on December 6, and proved an unqualified success. A choice programme of dance music was supplied, and dancing was kept up to the early hours of the morning. The responsible committee, which had Mr. S. McCauley as president and Mr. B. McNamara as secretary, are to be congratulated on the success of their first dance. The distinguished guests included Mr. Sean MacEntee (Minister for Finance) and Mrs. MacEntee, the



[Photo]

[Smith]

IRISH PHARMACEUTICALS, LTD., FIRST ANNUAL DANCE

The Committee who organised the function.—*Front Row (left to right):* Miss K. McCauley, Mr. S. McCauley (President), Mrs. McCauley, Mr. D. G. Dowdall (Treasurer); *Back Row (left to right):* Mrs. Dowdall, Mr. B. McNamara (Secretary), Miss M. Ryan, Mr. D. Sinott, Mr. D. O'Sullivan, Miss M. Corr.

Lord Mayor of Dublin (the Rt. Hon. Alfred Byrne) and Miss Byrne, Mr. R. Briscoe, T.D., Dr. Hannigan, T.D., Dr. Lynch, T.D., Mr. S. McCauley (managing director) and Mrs. McCauley, Mr. C. J. Cremen (a member of the Council of the Pharmaceutical Society of Ireland and chairman of Irish Pharmaceuticals, Ltd.) and Mrs. Cremen, Mr. P. C. Cahill, M.P.S.I. (director), Mr. P. F. McGrath, M.P.S.I. (director), Mr. D. O'Sullivan, Ph.C., Mr. B. McNamara (works manager), Mr. D. J. Nugent (past-president of the Pharmaceutical Society of Ireland) and Mr. D. J. Donoghue (chairman of the Federation of Irish Industries). The company also included representatives from all branches of the drug trade.

Cardiff Dinner and Dance

THE annual dinner and dance of the Cardiff and District Pharmacists' Association was held at the Park Hotel on December 6. Mr. J. Lee Jones (president) was supported by a large number of pharmacists and friends. Among the guests were the Lord Mayor and Lady Mayoress of Cardiff, Mr. J. Keall (president of the Society), Mr. O. Temple Morris, M.P., Dr. J. Greenwood Wilson (medical officer of health), Mr. Robert J. Webber, Principal C. Coles and others. The chairman proposed "The Pharmaceutical Society." He referred to the Pharmacy and Poisons Act which, he thought, would bring about better conditions for the calling. Mr. Lee Jones said an improvement in the election to the Council would be brought about if a system of territorial representation was adopted. Mr. John Keall, in reply, said the new Act would undoubtedly lead to the consolidation of pharmacy. They had won something, the ultimate effect of which was bound to be of benefit to pharmacy. Mr. Trevor Thomas proposed the toast of "The City of Cardiff," and, in reply, the Lord Mayor strongly recommended that chemists should, where possible, enter into the duties of city councillors. He congratulated Mr. G. Holley, chemist and druggist, on the excellent film of

Cardiff he had produced for the purpose of advertising the advantages of the city and district from the business point of view. Mr. Robert J. Webber proposed "The Ladies," to which Mrs. J. Lee Jones responded. "The Visitors and Kindred Associations" was submitted by Mr. James Murray, and Dr. Greenwood Wilson responded. The toast of "The Cardiff Association" was given by Mr. O. Temple Morris, who expressed the view that every trader should be a member of his trade organisation. Mr. J. T. Day (vice-president) replied. During an interval Mr. E. G. T. Loyley presented a replica of the Newbery cup to Mr. James Murray, who had won the trophy in the annual golf tournament. Mr. W. Gwynne Wigley (the secretary) was congratulated on the arrangements.

Association Meetings

Aldershot.—The second meeting of the winter session of the Aldershot and District Chemists' Association and Branch of the National Pharmaceutical Union took place on November 29. There were present members from Aldershot, Camberley, Frimley, Farnborough, Farnham and Fleet, and the chairman (Mr. H. L. Allen) congratulated them on the excellent attendance. This Association is open to qualified managers and assistants, and prospective members are requested to communicate with the secretary, 200 Fleet Road, Fleet.

Edinburgh.—The second meeting of the fifty-sixth session of the Edinburgh Chemists', Assistants' and Apprentices' Association was held on December 8, Mr. F. J. Jackson (vice-president) in the chair. Mr. Latimer (secretary) submitted the report on the summer session. The session had been highly successful. On the motion of Mr. Knott the report was adopted. The chairman then called upon Mr. W. A. Beattie to give an address on the cultivation of medicinal plants in Scotland. Mr. Beattie gave an historic account of the first cultivation of medicinal plants in Edinburgh in 1661, when they were grown in the "Easter Yard" of George Heriot's Hospital. Sir Robert Sibbald initiated a similar scheme in 1670 in what was called the "Physic Garden," which was situated at the point just below the Calton Hill. Mr. Beattie then proceeded to deal with what might be called the comparatively unimportant systematic cultivation of some medicinal plants in Scotland for commercial purposes. He then gave an account of experiences in the cultivation of plants at Inverleith. The lecture was illustrated by lantern slides. On the motion of Mr. Tainsh, a cordial vote of thanks was awarded to Mr. Beattie.

Manchester.—The monthly joint meeting of the Manchester Pharmaceutical Association and Manchester and Salford Branch of the Pharmaceutical Society was held on December 7, the president of the Association (Mr. E. H. Simmons) in the chair. Dr. K. H. Coward (head of the Nutrition Department of the Society's Pharmacological Laboratories) gave a lecture on *Vitamins*. Dr. Coward gave a lucid and entertaining lecture, dealing with each vitamin in an instructive manner. At the conclusion of the address the chairman opened the meeting for discussion. Dr. Coward replied to a number of questions. The audience showed their appreciation by loudly applauding the vote of thanks proposed by Mr. James Grier. In reply Dr. Coward said she had thoroughly enjoyed the visit.

Women Pharmacists.—An informal social evening of the National Association of Women Pharmacists was held on December 7, Miss Hodgkinson presiding; about fifty members were present. Miss Harvey read a paper by Miss Bergin, who was absent owing to illness. The paper, entitled *Experiences of Locum Work*, dealt with hospital and retail work. Miss Bergin advised the new comer to the ranks of pharmacy to take any chance offered at first, and locum work, she said, gives experience. A lengthy discussion followed in which Mrs. Freke, Miss Gilliatt, Miss Edmund, Miss Cliff and others took part. A vote of thanks to Miss Bergin and Miss Harvey was proposed by Miss Gilliatt.

Cinchona and Civilisation

HARRISON MEMORIAL LECTURE

By Bernard F. Howard, F.I.C.

THE second evening meeting of the present winter session of the Pharmaceutical Society of Great Britain was held at 17 Bloomsbury Square, London, W.C.1, on December 12. The occasion was the delivery of a Harrison memorial lecture and the presentation of a Harrison lectureship medal. The lecturer and medallist was Mr. Bernard F. Howard, F.I.C. The president (Mr. J. Keall) was in the chair, and supporting him at the table were the treasurer (Mr. A. H. Jenkin), Professor H. E. Armstrong, and Mr. H. N. Linstead (secretary). The audience included Mrs. Howard, Mrs. Freke, Dr. W. H. Linnell, Mr. W. J. Beardsley, Mr. G. R. Boyes, Mr. Frank Browne, Mr. A. R. Melhuish, Mr. C. A. Noble, Mr. P. A. W. Self and Mr. H. Skinner.

THE PRESIDENT said it was a great pleasure to welcome those present to the second evening meeting of the session. They were about to listen to the Harrison memorial lecture which would be delivered by Mr. Bernard F. Howard. The title of Mr. Howard's paper was distinctly entrancing, and he was sure they would receive an informative and interesting address. Mr. Howard, he reminded them, was a vice-president of the Institute of Chemistry, a member of the Pharmacopœia Commission, and a member of the Chemistry Subcommittee of the Codex Revision Committee. He asked Mr. Howard to deliver his address on

Cinchona and Civilisation

[ABSTRACT]

By BERNARD F. HOWARD, F.I.C.

In a speech made by the late Sir Ronald Ross a year or two before his death, when the immense importance of his life's work was at last obtaining a tardy recognition in the minds of the world at large, he said:—

Malarial fever is important not only because of the misery which it inflicts upon mankind, but because of the serious opposition which it has always given to the march of civilisation in the tropics. Unlike many diseases, it is essentially endemic, a local malady, and one which unfortunately haunts more especially the fertile, well-watered, and luxuriant tracts—precisely those which are of the greatest value to man. There it strikes down not only the indigenous barbaric population, but, with still greater certainty, the pioneers of civilisation—the planter, the trader, the missionary, and the soldier. It is, therefore, the principal and gigantic ally of barbarism. No wild deserts, no savage races, no geographical difficulties have proved so inimical to civilisation as this disease. We may also say that it has withheld an entire continent from humanity—the immense and fertile tracts of Africa; what we call the dark continent should be called the malarious continent; and for centuries the successive waves of civilisation which have flooded and fertilised Europe and America have broken themselves in vain upon its deadly shores.

Historically it is somewhat difficult to trace the course of malaria owing to the difficulty of distinguishing between this and other "fevers" when mentioned by classical and historical authors of bygone centuries. It is interesting to speculate whether the failure of the Greeks to take Troy for so many years was due to the army being encamped in a malarious district. There is no doubt that Hippocrates, in his writings on fevers, has given a fairly accurate description of that disease, and historical students of the Greek era are fairly convinced that it was one of the common diseases known to the Greeks. There is no doubt that the sterner Roman had learned one of the prime factors in combating malaria, namely, efficient drainage of swamps. The defeat of Hannibal by Fabius may certainly be attributed in part to the enormous losses incurred by the Carthaginian armies while camping for long periods in the fever-ridden marshes of Italy. These are only one or two instances of how the course of classical history and the fate of nations has been changed by the incidence of malaria.

In the Middle Ages, owing to the discovery of the New World and the impetus of colonisation by conquest, its influence becomes still more marked. It is curious to note that Oliver Cromwell is supposed to have died of malaria, but that Charles II a few years later was cured of the disease owing to the administration of cinchona bark by Sir John Tabor, his physician. A few weeks ago "The Times" published some very vivid articles on the Crimean War and especially the Battle of the Alma. I have looked up my forbears' quinine production for these years, and I find that the output for 1857 shows an increase of 27 per cent. over the 1856 figure, and the post-Crimean War year 1858 shows a decrease of 22 per cent. Surely a good proportion of this 1857 increase must have gone to the Army.

THE SALONIKA EXPEDITION

In our own time innumerable instances might be quoted in which enterprises of world-wide importance have only been carried through by the conquest of malaria in the particular district concerned, such as in the case of the construction of the Panama Canal, but I wish to give you one short extract of war history relating to Salonika published recently by Dr. William Fletcher in the *Tropical Diseases Bulletin*.

"The army disembarked at Salonika in the autumn of 1915. Ross, Laveran and others gave clear warning, in January and February of 1916, that severe malaria would be experienced unless timely precautions were taken; but, although plans were made and orders were issued, the ignorance of the officers, of the common soldiers, and even of the doctors, prevented their proper execution. The authorities charged with the application of prophylactic measures mocked and laughed at them; were they not the dreams of doctors haunted by an *idée fixe*? One hospital where proper precautions were taken, and which was properly screened, was regarded with ironical contempt. Perhaps more important than all, the medical officers did not know how to give quinine, and they did not believe in it. The result was disaster. In 1916 there were some 60,000 cases of malaria in a force of about 115,000 men. In the autumn there were not more than 20,000 men in the line. General Sarraill reported to the Government that his army was immobilised in hospital. In January 1917 the authors were sent out to investigate and to draw up a plan of action. They decided that antilarval measures on a large scale were not expedient for the protection of an army in temporary occupation of a country, and they recommended quinine prophylaxis rigorously applied. Minute details were given as to the way it was to be given under personal supervision; everyone was to take quinine every day, not as a medicine, but as a ration; refusal to take it was to be regarded as a refusal to obey orders in the face of the enemy. . . . The result was success, and the army was saved."

The tricentenary of the discovery of cinchona bark was duly celebrated some three years ago, and during those three centuries and up to the present day cinchona bark and its constituent alkaloids have reigned supreme as the only specific cure for malaria. The story of the discovery of cinchona is a fascinating romance, and in itself contains enough subject matter for a lengthy lecture. From 1638 until 1852 the whole of the bark supplies were drawn from the uprooting and destruction of the trees growing naturally in the forests on the slopes of the Andes in Peru and Ecuador. Just when the total extinction of the species appeared to be imminent the era of cinchona cultivation began. Of our own compatriots, one name stands supreme as the father of modern cinchona cultivation—that of Sir Clements Markham, who has left for future generations a most fascinating account of his life's work in his book, published in 1880, entitled "Peruvian Bark," a study of which will amply repay any inquiring student interested in the history of drugs. In 1859 he organised expeditions to the forests of the Andes in search of seeds and seedlings of all the Cin-

chonanaceæ then of commercial importance. Markham's narrative of these expeditions tells of the immense difficulties which were summounted by these public-spirited pioneers, not only from the actual hardships of the expeditions, but also from the suspicious and often actively hostile attitude of the Indians, and, to crown all, the problem of transporting the collections to the coast and carrying them alive to England, and subsequently through the Red Sea to India. All these difficulties were, however, overcome, and a large proportion of the seedlings survived the ordeal, and were successfully planted in the Nilgiri Hills in 1861, under the superintendence of MacIvor. The cultivation of cinchona in India from MacIvor's seedlings rapidly spread, and plantations were established by private owners in the Nilgiris, and in the Palnai Hills of Travancore. In 1865 plantations were established at Hakgala in Ceylon and in Coorg, followed shortly after by further enterprises at Wainad, Mysore; Darjiling in Sikkim; and the Karen Hills in Burmah. The first attempt at cultivation in Java in 1852 ended in complete failure through the poor alkaloid-producing characteristics of the varieties of cinchonas of which seedlings were secured from South America; the only trees producing a tolerable yield being a small number obtained from MacIvor's plantations in the Nilgiris. In 1855, however, Charles Ledger secured some seeds of *Cinchona Calisaya*, half of which were planted in India, and half in Java. Those in India failed, owing either to the climatic conditions or to mismanagement of the plantations after MacIvor's death. Those in Java, however, flourished exceedingly.

There is no doubt that the efforts of cinchona planters have for the past sixty years or so been directed to producing a bark containing the highest possible percentage of quinine at the lowest possible cost. This has been accompanied by a considerable reduction in the supply of the other alkaloids of cinchona. To illustrate this point, the table below gives two analyses: A, typical of the very best natural *Calisaya* bark produced from wild trees in about 1865; and B, of a typical good quality cultivated *Legeriana* bark sold in Amsterdam in May, 1914:—

	Quinine Per cent.	Cinchon- idine Per cent.	Quini- dine Per cent.	Cinchon- ine Per cent.	Amor- phous Per cent.	Total alkaloids Per cent.
A...	3.615	0.75	0.165	0.34	0.93	5.80
B...	7.92	0.105	0.08	0.085	0.91	9.10

QUININE AND OTHER ALKALOIDS

Until about ten years ago medical opinion apparently supported this desire to produce quinine in the purest possible state consistent with cheapness. Each successive pharmacopœia laid down more severe tests for purity and freedom from other alkaloids, the B.P. 1932 being no exception to this rule. From 1925 onwards, however, one section of medical opinion appears to have changed, and an increasing demand has sprung up for the "other" alkaloids—cinchonine, cinchonidine and quinidine, either singly or in the form of mixed alkaloids or febrifuges. This movement has resulted in the introduction of a preparation known as totaquina in the B.P., 1932. No doubt from the therapeutic standpoint these mixed alkaloid preparations deserve the most careful study, but the chemist can only regard them with profound suspicion. For the last hundred years the isolation, separation and purification of the thirty or so different alkaloids present in cinchona bark has been the subject of careful study by a large number of workers, and in consequence the commercial standards of the cinchona products have risen to a high degree of purity. Does not the official recognition of a very crude and variable mixture of alkaloids, some of them highly toxic, appear somewhat of an anticlimax to the chemist?

The whole malaria problem has of recent years come under the scope of the Health Section of the League of Nations and a large amount of most useful data has been collected showing the magnitude of the task and the means available. According to Reiner Muller, there are 800,000,000 cases of malaria per annum, and Sir Ronald Ross estimates the annual toll of deaths from this cause at 2,000,000. A survey has been made by the League of Nations Commission and an estimate is made of the

malaria cases requiring treatment throughout the world, and the quantity of specific drugs required if it were possible for every patient to receive treatment. The figure arrived at for the amount of quinine required annually for the complete treatment of every case of malaria throughout the world appears to be in the neighbourhood of 1,200,000 kilos. If we assume for the moment that in any one year all the nations of the world were in a position to purchase and distribute this quantity, it is naturally a matter of some interest to inquire if this demand could be met by the existing quinine industry of the world. The answer to this hypothetical question is in the affirmative. It is necessary to sketch very briefly the history of the isolation and early manufacture of the alkaloids. Gomez, a Portuguese naval surgeon, separated cinchonine in 1810, an achievement which was followed some ten years later by Pelletier's isolation of quinine. The isolation of the two remaining principal alkaloids, cinchonidine and quinidine, was the subject of fierce controversy owing to muddles in nomenclature, but by 1850 the "Big Four" were known and recognised. As a natural sequence of the isolation of these alkaloids, came their manufacture. I believe that the firm of Morson were the first manufacturers of quinine in this country, and also a certain Dr. Alexander Low (an ancestor of the wife of my nephew and colleague, Major H. Ll. Howard) was actually manufacturing quinine by Pelletier's process in Jersey, but discontinued his activities after some twelve months owing to the defection of his assistant. The records of my own firm disclose the fact that my great-grandfather, Luke Howard, was manufacturing quinine on a large scale by 1823. The question has sometimes been asked whether any quinine has ever been prepared from English grown cinchona trees. My great-uncle, John Eliot Howard, younger son of Luke Howard, during his study of the cinchonaceæ, succeeded in growing some trees in his greenhouse at Tottenham. I have two photographs taken in 1879 of the trees in his greenhouse, some leaves from these trees, and also a small bottle of quinine which he actually extracted from his own bark. It is, I believe, the only quinine in the world of purely English origin! My great-uncle was not the originator of experimental cultivation of cinchona in this country. There is a reference to this subject in Evelyn's diary which is quoted in Drewitt's "Romance of the Apothecaries' Garden at Chelsea."

August 7, 1685.—I went to see Mr. Watts, keeper of the Apothecaries' Garden of simples at Chelsea, where there is a collection of innumerable rarities of that sort; particularly, besides many rare annuals, the tree bearing Jesuits' bark, which had done such wonders in Quartan Agues. What was very ingenious was the subterranean heate, conveyed by a stove under the conservatory, all vaulted with brick, so as he (John Watts) has the doors and windows open in the hardest frosts, secluding only the snow.

SPECIFIC DRUG THERAPY

In addition to quinine and other preparations of cinchona bark, two synthetic preparations—namely, plasmoquine and atebrin (formerly named erion)—must now be classed as specific antimalarial remedies, which are being extensively used in many parts of the world. They are not to be regarded as being substitutes for quinine, but as additional weapons for use in particular circumstances and for special purposes. What has to be understood and to be applied in practice is that each of the three specific drugs, quinine, plasmoquine and atebrin—has its own particular action on the malaria parasite in one or other phase of its life cycle in the human host, and that what the physician should aim at is to select the correct drug and the optimum dosage for the particular purpose in view. Commercially only four alkaloids are of importance, and they have been already enumerated, namely, quinine, cinchonidine, cinchonine and quinidine. Actually the total number of separate alkaloids that have been isolated from cinchona bark number thirty and they are shown in the following table grouped according to their empirical formulas:—

- | | |
|-------------------------------|----------------------|
| 1. Cinchonine | } $C_{19}H_{22}ON_2$ |
| 2. Cinchonidine | |
| 3. Cinchonifine (cinchotoxin) | |

- | | |
|---|--------------------------|
| 4. Hydrocinchonine (cinchotine) | } $C_{19}H_{24}ON_2$ |
| 5. Hydrocinchonidine (cinchamidine) | |
| 6. Cinchonamine | |
| 7. Cupreine $C_{19}H_{22}O_2N_2$ | } $C_{19}H_{21}O_2N_2$ |
| 8. Quinamine | |
| 9. Conquinamine | |
| 10. Quinine | } $C_{20}H_{24}O_2N_2$ |
| 11. Quinidine | |
| 12. Quinine (quinotoxin) | |
| 13. Hydroquinine | } $C_{20}H_{26}O_2N_2$ |
| 14. Hydroquinidine | |
| 15. Chairamine | |
| 16. Conchairamine | } $C_{22}H_{26}O_4N_2$ |
| 17. Chairamidine | |
| 18. Conchairamidine | |
| 19. Aricine | } $C_{23}H_{26}O_4N_2$ |
| 20. Cusconine | |
| 21. Concusconine | |
| 22. Dicinchonine $C_{38}H_{42}ON_4$ | } formula not determined |
| 23. Diquinidine (diconquinine) $C_{40}H_{46}O_3N_4$ | |
| 24. Javanine | |
| 25. Cusconidine | } formula not determined |
| 26. Cuscamine | |
| 27. Cuscaminidine | |
| 28. Paricine $C_{16}H_{18}ON_2$ | } $C_{21}H_{24}ON_2$ |
| 29. Paytine | |
| 30. Paytamine | |

With the exception of the four mentioned above, most of these alkaloids are more or less chemical curiosities, and the majority of them occur in extremely small quantities. Although each and all of them are undoubtedly interesting from an academic point of view, very few of them have, or are ever likely to have, any practical bearing on the cinchona industry. In addition to these natural alkaloids, a very interesting series of hydrogenated derivatives can be obtained. When R^1 is $-OCH_3$ and R^2 is $-CH=CH_2$ the formula represents quinine. Hydroquinine is obtained by saturating the vinyl group, R^2 , which then becomes $-CH_2-CH_3$. When R^1 is a hydroxyl group, and R^2 is $-CH_2-CH_3$, the formula represents hydrocupreine, and this can be regarded as the parent alkaloid, the hydrogen atom of the hydroxyl group being replaced by an increasing side chain to form the higher derivatives. As these compounds are really derivatives of quinine, it is perhaps unfortunate that their nomenclature relates to hydrocupreine, which is only one of the intermediate stages in their synthesis. Many of these hydroalkaloids have most marked therapeutic properties which can be found summarised by Dixon in the monograph in the B.P. Codex, 1923, on quinine. One of these deserves special mention, as it has an extraordinary bactericidal action on pneumococcus, viz., ethylhydrocupreine, which is more commonly known and sold as optochin. In common with many new compounds, this fell into disrepute on its first introduction owing to the unpleasant effects produced by overdosing with the very soluble hydrochloride salt. Of late years, both in Germany and America, by careful regulation of the dosage, and by using the less soluble alkaloid, it is coming to be looked upon as a most valuable aid in the treatment of pneumonia. Of the newer and more complex salts must be mentioned the salicyl-salicylate, which seems to have excellent properties for use in coryza or common cold.

There seems to be a gap, at present unbridged, between the chemical constitution of these alkaloids and their therapeutic efficiency. I have no wish to belittle the large amount of work that is going on, which may perhaps be laying the foundations of our bridge, and in this connection I should like to mention the work of Dawson and others in America. These authors are making a systematic study of two classes of isomerides with respect to "quinine idiosyncrasy." The complete subjugation of malaria is not by any means unthinkable, but this achievement, which would bring untold relief to millions of our fellow-creatures, can only be effected by unstinted efforts. The solution of the problem would seem to demand far closer collaboration than has ever occurred in the past between the pharmacologist and clinician on the one hand and the research chemist and the manufacturer on the other.

Vote of Thanks

THE PRESIDENT said the presentation of the medal commemorated the late Colonel E. F. Harrison. In the

war Colonel Harrison, with a great sense of duty, offered himself for service and was accepted. He was soon given a leading position in the Chemical Warfare Department of the Ministry of Munitions. Worn out by his work and by the personal testing of the conditions suffered by the men, he died on November 4, 1918. It was his (the president's) pleasure to present the medal in memory of Colonel Harrison to Mr. Bernard Howard.

MR. HOWARD thanked them for the great honour and for the kind words said about him. He had not the privilege of knowing the late Colonel Harrison personally, but he held his life's work in very great esteem.

THE PRESIDENT said they were pleased to have with them Professor Armstrong, whose inspiring address at the opening of the College of Pharmacy in October should still be fresh in the memory of many members. He had pleasure in asking Professor Armstrong to propose a vote of thanks to Mr. Howard.

PROFESSOR ARMSTRONG said Mr. Howard's father was his great friend from about 1870 onwards, and was one of the finest characters he had known. Professor Armstrong put forward various interesting points in connection with the subject of the lecture. He suggested there must have been some shrewd work on the part of the Incas to have discovered a substance of the nature of cinchona. Malaria, he said, was a disease of enormous gravity, and they had, he thought, gone to sleep since Ross discovered the origin of the organism. He recalled an occasion when, in India in 1914, he contracted a sharp attack of malarial fever. For treatment he was given quinine sulphate in tablet form, a salt which he considered to be worthless. Professor Armstrong emphasised the necessity of proper food in the prevention of disease.

The vote of thanks was seconded by Mr. W. J. BEARDSLEY, who said it was a great pleasure to do so. Mr. Howard had given them an intellectual treat.

MR. HOWARD, in reply, thanked Professor Armstrong, Mr. Beardsley and the president. It was not a fault of the chemist, he said, that the sulphate of quinine was used, it was rather the fault of the medical profession for ordering that salt. While the word "sulphate" was associated with quinine, they would have the extraordinary position of the largest quantity sold being in the most unsuitable form.

Pharmaceutical Society of Great Britain

Memorial to the Late Professor Greenish

A committee entitled the Greenish Memorial Appeal Committee has been set up by the Council of the Society and the School of Pharmacy Students' Association to decide upon and to raise a fund for a memorial to Professor Greenish, which will be in addition to the memorial of a more formal nature that the Council have decided to erect. The chairman is Mr. A. R. Melhuish, and the joint honorary secretaries are Messrs. F. W. Adams and H. Noble. It is hardly necessary to commend the project to British pharmacists. The Committee will select an object which would have had the whole-hearted support of Professor Greenish, i.e., something connected with the School of Pharmacy or with pharmaceutical education. Subscriptions should be sent to the Joint Honorary Treasurers, The Greenish Memorial, 17 Bloomsbury Square, London, W.C.1, and cheques and money orders should be made payable to the Greenish Memorial Appeal Committee.

Presentation of the New Presidential Chair

A handsomely printed record of the presentation of the new presidential chair to the Society at the London meeting of the British Pharmaceutical Conference on July 26 has been circulated to the distinguished guests who took part in the ceremony, including those who

spoke by radio from Australia. A large type has been selected, and the book, comprising eighteen pages, is illustrated with three actual photographs—two of the chair, and one showing the Rt. Hon. J. H. Thomas (Secretary of State for the Dominions) with Mr. John Keall (president of the Society) on the platform at the ceremony.

Pharmaceutical Pocket Book

The twelfth edition of "The Pharmaceutical Pocket Book for Practitioners and Students," which has just been issued (Pharmaceutical Press, 23 Bloomsbury Square, London, W.C.1, pp. vi + 344, 5s. 6d., post free), has been edited by Mr. C. W. Maplethorpe, F.I.C., Ph.C., with the collaboration of several experts. The publication has been brought up to date in every respect, and its scope has been extended to include new subjects of practical value. The new edition is bound in flexible blue leatherette with gilt lettering, and remains essentially a useful "pocket book."

Codex Revision Committee

The report of the Pharmaceutical Chemistry Subcommittee of the Codex Revision Committee (Pharmaceutical Press, 23 Bloomsbury Square, London, W.C.1, pp. 51, 2s. 6d.) has been issued. The report is a summary of the principal standards for chemical substances recommended by the Pharmaceutical Chemistry Subcommittee and accepted, provisionally, for inclusion in the British Pharmaceutical Codex, 1934. The summary has been prepared in the hope that it will supply information to manufacturers and others interested, and that useful comments on the standards proposed will be received. Suggestions for the improvement of the tests will be welcomed, and careful consideration will be given to all communications relating to them.

The report of the Dressings Subcommittee of the Codex Revision Committee has also been issued (pp. 13, 1s. 6d.). The summary deals with the more important dressings for which revised requirements have been prepared.

Branch Meetings

Lancashire (N.-E.).—A meeting of the North-East Lancashire Branch was held at Blackburn recently. Mr. C. Taylor (president) in the chair. Mr. H. Antcliffe (a member of the Society's Council) addressed the meeting. Mr. Antcliffe dealt briefly with the finances of the Society and showed the necessity for economy, in order that money may be available for the building of new premises. He appealed strongly for an increase in subscriptions to the Benevolent Fund, which urgently needed money at the present time. A lively discussion followed. The chairman, in opening the discussion, commended the scheme for biochemical analysis, and said the Society ought to be pressed to grant facilities for this diploma nearer than London and other large centres. Mr. Antcliffe said there would be facilities for biochemical analysis tuition in other centres besides London. For instance, there were classes at Nottingham and elsewhere. Mr. Arthur Dobson said they were informed that they could not use N.H.I. dispensing for advertising purposes, yet they found types of these prescriptions in the public Press in publicity schemes. Mr. Antcliffe said he had sympathy with the complaint. Mr. Dobson said he was amazed that the chemists themselves did not bring pressure to bear in the right quarter. Mr. Antcliffe reminded the meeting that the N.P.U. were trying to introduce a publicity scheme for the profession to counteract the very things to which reference had been made. Mr. Dobson referred to Part II poisons, and said domestic poisons formed a big proportion of the chemists' business. If the qualified man had to pay £1 11s. 6d. for the privilege of selling poisons, why, he asked, should people get off with a fee of 5s. for selling Part II poisons. Mr. Antcliffe said he appreciated the point. On a motion of the president a hearty vote of thanks was given Mr. Antcliffe for his address.

Newcastle.—One of the most enthusiastic meetings ever held by the Newcastle, District and Northumberland Branch took place on November 23, to hear an address by Mr. E. H. Simmons (a member of the Society's Council) on *The Pharmacy and Poisons Act*. The room was crowded with pharmacists and their assistants. The chair was occupied by Mr. Rufus Hepworth, who, introducing the speaker, paid a tribute to his long and honourable service in the cause of pharmacy. Mr. Simmons, who received an ovation, maintained that the presence of three Government nominees on the new Council would strengthen that body, adding dignity as well as usefulness. If caution and tact were observed in the exercise of the duties imposed on the Statutory Committee nothing but good to the craft would result. In future all shops would pay a registration fee, the amount of which had not as yet been fixed. This clause would make it illegal for a registered pharmacist to own and carry on an unqualified drug store. Mr. Simmons also dealt with the Poisons Board. He expressed the view that many were unduly apprehensive of a wide extension of facilities in the distribution of poisons. In conclusion he appealed to all pharmacists loyally to assist in making the Act a real step in the direction of improved conditions in pharmacy. A hearty vote of thanks was accorded to Mr. Simmons on the motion of Mr. Roper.—The monthly meeting was held on December 7, Mr. Rufus Hepworth (president) in the chair. Dr. E. F. Dawson-Walker (assistant medical officer of health) gave an interesting and instructive address on *The Endocrine Glands*. The address dealt individually with the various glands, pituitary, thyroid, suprarenal, thymus, pineal and parathyroid; the origin and use of insulin and its limitations; the abuse of gland products; and the extravagant claims made for many of these products. The address was crammed with useful and interesting facts. On the motion of Mr. Bennett a hearty vote of thanks was accorded Dr. Dawson-Walker.

Norwich.—A meeting of the Norwich and District Branch was held on November 28, the president (Mr. J. C. Davies) in the chair. There was a record gathering to hear Mr. H. Skinner (a member of the Society's Council) give an address on *The Pharmacy and Poisons Act* (C. & D., December 2, p. 677). Mr. Davies thanked Mr. Skinner and invited questions. Mr. King asked whether the Act insisted on every sale of a poison being made by a member, and what personally conducting a business really inferred. Mr. Skinner said a chemist who was personally conducting his business in the ordinary sense would not be worried. The sale of poisons by assistants would continue as before. Mr. Pitchford asked for further explanation of the phrase "Not lawful to use any symbol which indicates that he is qualified to sell drugs." Mr. Skinner said the main idea was that drug store proprietors must not give false impressions by use of signs; they could sell drugs but not hold themselves out to be chemists. Mr. Lacey asked if they could still make up medicines. Mr. Skinner said that was a matter for the courts to decide. Mr. Collin asked whether the Council had any say in any regulations the Home Office might bring into force. Mr. Skinner said proposals concerning the retail trade would be submitted to the Society, these concerning other sections of pharmacy to the bodies concerned, and the Home Office were bound to take notice of their criticisms. Mr. Margetts asked whether the Society had considered what was to be done with the retention fees. Mr. Skinner replied that it was difficult to estimate how many new members there would be. In reply to other questions he stated that the fees of the "licensed sellers" would be paid to the local authorities, who would probably do their own inspection. Mr. Pitchford, in moving a vote of thanks, congratulated Mr. Skinner on his able handling of a difficult question, but said that he, personally, still felt very uneasy. Mr. Collin, in seconding, said the Act always looked ambiguous and still was even after the able address. Mr. Skinner regretted that his exposition of the skeleton could not be more complete, but until the bones were clothed by the persons responsible they would not know what kind of being it would become.

THE CHEMIST AND DRUGGIST

VOL. CXIX. DECEMBER 16, 1933 NO. 2810

The New Order

THE local associations and branches of the Pharmaceutical Society are now at the beginning of their winter session, and the first claim upon their attention is the new Pharmacy and Poisons Act in its relation to the practising pharmacist. Certain sections, as recorded in our issue of August 19 (p. 240), are now in force; they are not of primary value to actual practice. The sections possessing more immediate interest are those coming into force on December 31, 1933. These are Sections 1, 2, 6 (with the First Schedule), and 31 (4) (with the Third Schedule, so far as concerns certain words in the Pharmacy Act, 1852, Section 10, and the Pharmacy Acts Amendment Act, 1898, Section 3). Section 1 of the new Act is based on the existing Registers of Pharmaceutical Chemists and Chemists and Druggists, and all persons whose names are thereon will be required, within the period defined by the new by-laws, to pay the annual retention fee of 3s. 6d., save life members of the old Society, numbering about 1,100, who are to be exempted from payment of this fee. It is commonly assumed that registration and annual retention will compulsorily apply to those only who intend to carry on the business of a pharmacist—in other words, that assistants who are qualified by examination, those in institutions or those in the wholesale may not be on this new official Register unless they so desire. This conception, however, cuts both ways, as in Section 3 we have the following:

"It shall not be lawful for a person, unless he is registered as a pharmaceutical chemist, to take or use the title of pharmaceutical chemist or pharmacist, or for any person unless he is registered as a pharmacist to take or use the title of 'chemist and druggist,' or of druggist or of pharmacist or of Member of the Pharmaceutical Society, or to take or use in connection with the sale of goods by retail the title of chemist."

Registration and Inspection of Shops

The fee for the registration of shops presents a controversial subject of the first magnitude, as it will be a new and direct tax on the owners. Obviously, the pharmacist in business will desire to have the amount payable fixed at the lowest figure (as some have said, "a nominal sum"). The National Pharmaceutical Union will, no doubt, express a point of view diametrically opposed to that of the Society, as the latter must provide funds adequately to cover all the possible costs incurred under the new administration, while the Union is content with the protection it gives and will think a nominal amount sufficient. The number and the true purpose of the inspectors can easily lead to confusion of thought. The number suggested has been as low as six and as high as thirty. Clearly, both figures are guesswork. The true purpose of any inspectorate should be to provide adequate protection for the practising pharmacist, as well as to maintain the require-

ments of the law, since he should not be a nuisance to his fellow members, but should give practical assistance as liaison officer between the governing bodies and the individual. Moreover, it is essential that Section 3 (restricting titles) as well as the new Poisons Regulations, shall be properly observed: a narrow idea of what is practicable with regard to the inspectors will be but a stimulus to evade the law. The distribution of authority in the control of Part II poisons will open the door for the exploitation of many things; and only an adequate and experienced inspectorate will safeguard the pharmacist from illegitimate encroachment. No central governing body or local association can exercise the necessary influence to affect the hundreds of administrative authorities, nor can any authority act satisfactorily without evidence of infringement based on intelligent observation. The titles of shops as used at the present time will present difficulties. Section 3 (2) reads:

"It shall not be lawful for a person to use in connection with any business any title, emblem or description reasonably calculated to suggest that he or anyone employed in the business possesses any qualification with respect to the selling, dispensing or compounding of drugs or poisons other than the qualification which he in fact possesses."

Many kinds of possibilities arise out of this wording, particularly the inclusion of the word "drugs," for which no definition is given in the Act, and a great deal will depend upon the militancy of the Council in its interpretation. In any case, the subsection provides a wide field of protection for pharmacists by an efficient inspectorate. This subsection further states:

"For the purposes of this sub-section the use of the description 'pharmacy' in connection with a business carried on on any premises shall be deemed to be reasonably calculated to suggest that the owner of the business and the person having control of the business on those premises are registered pharmacists."

The expression "reasonably calculated," is used in both paragraphs. If the use was an isolated one, it might be open to argument whether the word "pharmacy" was satisfactorily covered in view of the fact that it has been cultivated for years by unqualified vendors. The rendering in the second paragraph interprets "reasonably calculated" in reference to the use of the word "pharmacy" as being included within the definition. It follows from this that a wide outlook is necessary in considering this problem of the inspectorate.

An Invitation

DISCUSSIONS on the Pharmacy and Poisons Act, 1933, make curious reading. On the one hand potent, grave and reverend councillors—and other people—tell us that the benefits of the Act are chiefly in the nature of an insurance; on the other hand many speakers confess their inability to find any benefit in it.

We have come to the conclusion that it will be a good plan to ask pharmacists and everyone else interested in the Act to tell us what are the benefits (if any) to which pharmacy as a vocation may look forward as a result of the operation of this "long-range" Act. There will be no classification of merit in the replies that we may receive. For every letter printed we will pay 10s. 6d.; but no letter will be printed unless, in our judgment, it possesses sufficient public interest. This competition will remain open till the first post on January 1, 1934.

Official Inquiry on Imported Insulin

(Concluded from C. & D., November 25, p. 653)

ON the resumption of the proceedings on November 18, PROFESSOR J. C. DRUMMOND, D.Sc., F.I.C. (Professor of Biochemistry, University of London), gave evidence. He said that so far as he was able to weigh the evidence he regarded insulin as a chemical entity. Most certainly he regarded the Canadian method of production, as described, as a chemical method.

MR. HEALD (for the Board of Trade) asked if it were a fact that the identification of insulin was a matter of controversy. PROFESSOR DRUMMOND said he supposed that, if it were not, the inquiry would not be held.

MR. WATSON offered to call evidence to show that certain experiments carried out on the Continent, referred to by the opponents, were unreliable. The opponents, on the other hand, raised objections, and after consultation with his colleagues the Referee said they felt competent to judge the weight to be attached to the various publications which had been put forward at the inquiry, and they considered that to be the better course.

DR. F. H. CARR, F.I.C. (a director of The British Drug Houses, Ltd., and a past-president of the Society of Chemical Industry), who was the next witness, was first questioned with regard to the production of quinine sulphate of vegetable origin, a fine chemical exempted from duty under the Act. He said the process was very similar to the preparation of insulin, in regard to its alkalisation and acidification, and in passing from the salt to the base. The method described by Scott and Parker was not merely a laboratory method, but was the manufacturing method employed in the Connaught Laboratories in Canada. He had visited those laboratories, had seen the method in operation, and had discussed it with Dr. Scott; the whole of the insulin for the Dominion of Canada was manufactured by that process in that laboratory. The process used by himself in this country was even more elaborate, for there were several more stages than in the Canadian process. He estimated that The British Drug Houses, Ltd., and Messrs. Burroughs Wellcome manufactured well over 80 per cent., and probably 90 per cent., of the insulin consumed in this country. The process had to be watched hour by hour, and it involved skilled supervision at various stages; the hydrogen-ion concentration had to be adjusted continuously.

MR. MORITZ, cross-examining, asked what wages were paid to the chemical process workers engaged in the production of insulin, apart from those employed in a supervisory capacity. DR. CARR replied that their wages ranged from 65s. to 95s. per week, and in one case 105s.

MR. MORITZ suggested that they were lower-grade laboratory workers carrying out a routine task. DR. CARR would not call them lower-grade workers. A highly skilled chemical process worker was well paid at 105s. A man earning 65s. was well skilled, and a man earning 105s. was highly skilled.

MR. MORITZ suggested that the determination of PH value was not a highly skilled operation, and that any first-year university student could do it. DR. CARR said that was not his view.

Re-examined, DR. CARR agreed that the wages paid to process workers engaged in the manufacture of other fine chemicals were practically the same as the wages paid to process workers concerned with insulin preparation. One of the supervisors concerned with the preparation of insulin was paid a higher salary than supervisors concerned with other manufactures. The PH determination was of great importance; minute deviations might result in complete destruction in connection with the preparation of insulin.

The Referee and his colleagues examined by microscope a sample of crystalline insulin which had been prepared under the supervision of Professor Drummond.

Case for the Opponents

MR. MORITZ, for the opponents, urged that the word "chemical" was not used among scientific men as a

substantive noun, and that the words "substances," "reagents" and "bodies" more or less exhausted their nomenclature in referring to chemical bodies. People in the street used the phrase "chemical" in a rather sloppy manner, meaning the sort of thing one bought in a bottle and which did something to something else in a bottle. He urged, however, that the Statute was not addressed either to scientific people or to the "man in the street," so that the evidence on this matter was beside the point; the real people to whom the Act was addressed were the men who dealt with these things commercially. Such persons would define a chemical as something of a definite and ascertained constitution which could be definitely identified, and produced by ordinary chemical methods, to be used in chemical operations. He emphasised that the complainants in this case had not produced any of that class of person as witnesses; they had called scientific men, who said that they did not use the phrase "chemical" and that to their minds it did not possess any scientific meaning. Professor Robinson had set up a criterion which, Mr. Moritz submitted, was wholly impossible. It was that a body was or was not a chemical according to whether it possessed some special and striking quality. Every single thing in the world was a chemical substance or a mixture of chemical substances. To suggest that the Imperial Parliament had meant to include all chemical substances within the word "chemical" as used in the Act, therefore, would mean that everything in the chemical world must be searched in order to find out which of its constituents could be called "fine." That could not possibly have been the intention; the intention was to include those things which could reasonably be called chemical by commercial men dealing in these things, and then to decide which of those could reasonably be called "fine."

To date, this Tribunal or the Board of Trade had not included in the list of articles dutiable under the Act, as a chemical, any one body whose composition was not known reasonably accurately; or, in rare cases, they had included a mixture of one or two bodies the composition of which, and the proportions in which they were mixed, was adequately known, and which were known to be bodies of definite chemical composition. That ought to be, and was, one of the necessary criteria.

He did not think there was any dispute that insulin was of protein-like character. But a question to be asked was whether it was a protein or many proteins. Another question was whether its composition was in any degree certain. Nobody had succeeded in making a complete analysis of a protein to show what were the precise constituents. There had been a good deal of work on insulin, owing to its great physiological importance; but it remained a protein, and we could only say that certain of its amino acids had been got out, three-quarters of the bulk of the molecules had been accounted for, and the other quarter remained an inscrutable mystery. The point that it possessed physiological activity was a false criterion. If there were doubt as to whether insulin was one protein or many, whether its activity was due to an active group or to the protein as a whole, the complaint that it was improperly excluded from the list should fail. Even at this stage the complainants had failed to prove that it had a chemical identity.

Evidence for the Opponents

ON the resumption of the proceedings on November 20, DR. E. F. ARMSTRONG, F.R.S. (past-president of the Society of Chemical Industry), gave evidence for the opponents. As one who had carried out a considerable amount of work on the enzymes and proteins, he dealt with the outstanding features of proteins. He did not regard commercial insulin as a unique chemical body, and did not regard the crystalline body as a unique chemical compound. After commenting on the points put

forward by the complainants to support their contention, he said that no single one or any combination of them led him to believe that the commercial insulin was a single body. As to the point that determinations of percentage composition of specimens from different sources of supply agreed within limits of experimental error, he said that within reasonable limits all proteins had approximately the same analysis. Perhaps insulin showed an abnormal amount of sulphur, but even that did not prove that it was insulin.

Cross-examined, Dr. Armstrong said he did not regard insulin as a chemical entity; it was not identifiable chemically, but physiologically it was identifiable, although produced from different raw materials. He agreed that its physiological activity could be measured in terms of units, and accepted counsel's statement that insulin derived from a large number of different raw materials and by different methods of manufacture could be made substantially pure, to give a physiological activity represented by 24 units per milligram. As far as he was aware, no protein could be definitely identified chemically; in his view no protein was a chemical entity, for all proteins were mixtures. The evidence was pretty nearly overwhelming in favour of insulin being a protein. Asked to propose any test which would decide whether a body had or had not a chemical entity, Dr. Armstrong suggested it should have measurably defined chemical and physical properties, known structure, and it must be a body which had been synthesised or was capable of synthesis. Perhaps the synthesis was not necessary, but the other factors he had mentioned up to that point were. Mr. Watson asked if Dr. Armstrong would say that a body which was crystalline, whose crystals had a definite structure, which had a uniform quantitative physiological action, an invariable elementary composition and regular chemical and physical characteristics and reactions, from whatever source and by whatever method the body was obtained, was not necessarily a chemical entity. Dr. Armstrong said he would. In reply to further questions, he said that the chemical reactions applied to a group just as much as to an entity. A group such as the proteins had most chemical reactions in common. He agreed, however, that all members of a group would not have the same physiological activity or the same crystalline form. In his view, chemical identity called for certainty as to the molecular structure of the body. Mr. Watson suggested that if even a few of the tests which had been mentioned were applied to insulin, one would have no reasonable doubt that the body was a preparation of insulin. Dr. Armstrong replied that if he carried out all the tests, on a lot of material and over a fair amount of time, he would have an idea that the body was probably insulin. Those tests were pointers, but chemical tests were not in themselves sufficient to enable one to administer insulin safely. Mr. Watson suggested that the gradual purification of a crystalline substance up to the point at which physiological activity was a maximum was good evidence that the substance was a chemical entity. Dr. Armstrong disagreed; he said that one arrived at a protein which had standard physiological activity, but that was nothing to do with chemical entity.

The Opponents' View

MR. MORITZ, addressing the Tribunal on behalf of the opponents, said that there was agreement that insulin was in the nature of a protein, or proteins, and that the commercial insulin was a body which gave fairly consistent physiological results. The strength of commercial insulin seemed to vary between 20 and 22 units per mgm., but apparently some workers had produced a body having higher physiological effect, up to 24 units. There was a clash of opinion among highly qualified men as to whether the commercial product was one body of reasonable purity, or a group of proteins each one of which possessed physiological activity varying from member to member, or was one body of fixed composition and whose physiological activity varied only with varying purity. There being such a clash of opinion, this scientific matter was not one which the Tribunal should determine. Substances had to graduate for inclusion in the list, and he contended that insulin had not yet graduated.

The Board of Trade's View

MR. HEALD, for the Board of Trade, submitted that the Board must be absolutely satisfied beyond any doubt that an article was a fine chemical before it could include it in the list as a fine chemical, and it took the view that it was not entitled to include such an article unless it was something of which the identity was reasonably certain. The Board held that insulin of commerce was not a single chemical entity, and the evidence had shown that there was not a general acceptance among the authorities at the moment as to the identity of insulin of commerce. It would not be safe to adopt the principle that simply because certain processes were used in the extraction of a body, which processes could be described as chemical processes, that body came within the definition.

The Complainants' View

MR. TREVOR WATSON, for the complainants, said that Mr. Moritz had based his case on the proposition that if there were any possible controversy about the scientific facts, the members of the Tribunal were to hold up their hands and say that they were not going to solve a vexed scientific question or even to frame the best opinion they could on the merits of it, but that as there was a controversy they must determine against the application. Whilst it was Mr. Watson's submission that in point of fact there was no necessity to decide a question of scientific controversy, yet he did urge that, if it were deemed to be necessary to do so, it was the plain duty of the Tribunal to come to the best decision it could on the matter. He did not think it was possible to give a perfectly accurate answer to the question as to what was and what was not a chemical. The Statute dealt with commercial matters, and surely one of the commercial criteria was the position of the people who manufactured the article. There was the fact in evidence that insulin was made by fine chemical manufacturers, and he did not know of a much better commercial test than that. Mr. Moritz, although he had put chemical purposes in the forefront in the course of his opening speech, had since admitted that chemical purposes included medicinal purposes. Counsel submitted that the criteria as to the method of production and isolation of insulin, and the purpose for which it was employed, were conclusive in his favour. He had also proved his case in regard to the methods of recognition, because although insulin had to be subjected to a physiological test, Dr. Armstrong had agreed that if it were subjected to a series of physical and chemical tests, he would be practically certain that the body was insulin. Again, as to the relationship of the body to known chemical bodies, it was admitted that there was a very close relation between insulin and the proteins as a class. With regard to the distinction drawn between the commercial or so-called amorphous and the crystalline insulin, counsel drew attention to the evidence that the two were the same, and that the so-called amorphous form could be crystallised if one took the trouble to do so.

PROFESSOR DONNAN asked if the amorphous form was not as potent as the crystalline.

MR. WATSON said there was a slight difference between the two. The so-called amorphous material was probably not absolutely pure. The figure of 24 units could be attained by crystallisation, but from the commercial point of view it was not worth while. A commercial body was, from the chemical and the physiological points of view, the same body as the crystalline, and if complete chemical identity was established so far as the crystalline body was concerned, then the chemical identity of the commercial body was almost established. Further, if insulin were a definite chemical compound, then *a fortiori* its salts were definite chemical compounds. Finally, Counsel said he did not accept the view that the only criterion to decide whether a chemical was a fine chemical was that of purity; but even if that were so, there could be no question that insulin was a fine chemical. A point to be borne in mind in this connection was that from half a ton of pancreas there was produced only $1\frac{3}{4}$ oz. of insulin.

(The result of the inquiry was announced in the C. & D., December 9, p. 687.)

Trade Report

Where possible scales of prices of chemicals are given for bulk down to small quantities. Prices recorded for crude drugs, essential and fixed oils and coal tar products are for fair sized wholesale quantities. Qualities of chemicals, drugs, essential and fixed oils, etc., vary, and selected brands or grades would be at higher values

28 Essex Street, W.C.2, December 14

BUSINESS in most markets has been of a routine character and chiefly concerned with spot orders. The general tone is steady, but there are some few products that are disappointing. In the pharmaceutical chemicals markets the chief features are substantial reductions in the scales of amidopyrin and phenazone, which we forecasted two weeks ago. Santonin is now a free and competitive market. News on the aspirin and other salicylate Conventions, as to next year, is at present indefinite. Phenacetin is being offered cheaply. In the crude drugs markets business has been generally quiet but by no means negligible. Spices generally seem to have experienced a disappointing time during the past month or two. Belladonna root is still scarce on spot, with a similar position in bleached Mysore cardamoms. Considerable business in castoreum is reported following last week's sale. Chamomiles are very short. Interest is being shown in Portuguese ergot. The market is bare of henna and practically nothing coming forward owing to the muddle at Customs on the duty question. Menthol, for shipment, is a point better, but business is lacking. Opium continues to advance at the source. Saffron is quoted cheaper. Tinnevely senna leaves are steady but quieter. Shellac shows a sharp advance. Stocks of tragacanth continue to decrease on a firm market. The essential oils markets have had an uninteresting week and prices, with few exceptions, are none too steady. Bourbon geranium for shipment is cheaper. Palmarosa is easier and rather dull. Japanese peppermint is not attracting much business, but forward prices show a slight recovery. Sicilian lemon, orange and bergamot are about unchanged for shipment, but there is not much doing. In coal-tar products we understand that the prices of carbolic acid crystals for next year have been reduced, details of which are not yet to hand. Toluol, xylol and solvent naphthas are all firm and dearer. In fixed oils business has been moderate, with unusually low figures quoted for palm oils.

Exchange Rates on London

THE following is a list of the chief Continental and other exchange rates at the opening on Thursday morning:—

Centre	Quoted	Par	December 14	Value of the £
Amsterdam ...	Fl. to £	12.107	8.17	13/5½
Berlin ...	Mks. to £	20.43	13.74	13/5½
Brussels ...	Belgas to £	35	23.65½	13/5½
Copenhagen ...	Kr. to £	18.159	22.40	24/8
Lisbon ...	Esc. to £	110	109½	19/11
Madrid ...	Ptas to £	25.22½	40½	31/11½
Milan ...	Lire to £	92.46	62½	13/6
Montreal ...	Dol. to £	4.86½	5.02½	20/7½
New York ...	Dol. to £	nominal	5.03½	20/8
Oslo ...	Kr. to £	18.159	19.90	21/11
Paris ...	Fr. to £	124.21	83½	13/6
Prague ...	Kr. to £	164.25	110	13/5½
Stockholm ...	Kr. to £	18.159	19.39	21/4½
Warsaw ...	Zloty to £	43.38	29	13/5
Zurich ...	Fr. to £	25.2215	16.95	13/5

Bank rate 2 per cent.

Pharmaceutical Chemicals, etc.

Two leading Continental products have been substantially reduced this week in amidopyrin and phenazone; the lower prices are based on gold. Competition in a number of other products is noted and in these instances sales prices are rather under the quoted figures. The position of a number of important Conventions is still indefinite for next year.

AMIDOPYRIN.—The Continental new scale of prices, based on gold, are as follows: crystals, 5 cwt., 11s. 8½d.; 2 cwt., 11s. 11½d.; less than 2 cwt., 12s. 2d. per lb., powder extra. Converted into sterling on an exchange of 84 francs they work out as follows: 5 cwt., 17s. 3½d.; 2 cwt., 17s. 7½d.; less than 2 cwt., 17s. 11½d. per lb.

ASPIRIN.—This market is doing very fair business, with prices unchanged: home trade, ten cwt., 2s. 9d.; five cwt., 2s. 10d.; one cwt., 2s. 10½d.; 28 lb., 2s. 11d.; 14 lb., 3s.; 7 lb.,

3s. 2d. per lb. Export to Colonies and British Possessions: ten cwt., 2s. 9d.; five cwt., 2s. 10d.; one cwt., 2s. 10½d. per lb., f.o.b.; less than one cwt., 2s. 11d. per lb., ex works.

BARBITONE.—Business is slow, with spot prices competitive: spot, one cwt., 12s. 11d.; 56 lb., 13s. 1d.; 14 lb., 13s. 3d.; small parcels, up to 13s. 9d. per lb.

BISMUTH SALTS.—Makers' agreed scale of prices for these salts continue at former figures: carbonate, cwt. lots, 7s. 8d. per lb.

BROMIDES.—Inquiry has been limited; quoted prices are unchanged: ammonium, not less than five cwt., 1s. 9d.; one cwt., 1s. 10d.; 28 lb., 2s. 1d.; smaller quantities, 2s. 5d. per lb.; potassium B.P. crystals and granular, not less than five cwt., 1s. 6d.; one cwt., 1s. 7d.; 28 lb., 1s. 10d.; smaller quantities, 2s. 2d. per lb.; sodium B.P., not less than five cwt., 1s. 8d.; one cwt., 1s. 9d.; 28 lb., 2s.; smaller quantities, 2s. 4d. per lb., without engagement. Special prices for larger quantities.

CAFFEINE.—Continental material continues to be quoted at the reduced rates recorded last week: pure, 250 lb., 6s. 2½d.; 100 lb., 6s. 4½d.; 50 lb., 6s. 6½d.; less than 50 lb., 6s. 9d. per lb. Citrate, 250 lb., 5s. 1½d.; 100 lb., 5s. 2½d.; 50 lb., 5s. 3½d.; less than 50 lb., 5s. 4½d. per lb., net, carriage paid. Packages from 5 lb. and upwards free.

CALCIUM LACTATE.—About average business moving, with keen prices quoted for bulk quantities: spot, one cwt., 1s. 0½d.; 56 lb., 1s. 1½d.; 28 lb., 1s. 2½d.; smaller quantities, up to 1s. 6d. per lb.

CHLORAL HYDRATE.—This market is very steady at makers' recent reductions: duty-paid crystals, in 14-lb. free containers, five cwt., 3s. 3d.; one cwt., 3s. 4d.; 56 lb., 3s. 5d.; 28 lb., 3s. 6d.; 14 lb., 3s. 7d. per lb.; 28-lb. jars, one penny per lb. extra.

CHLOROFORM.—Makers' prices for home trade are as follows: in drums, 2s. 3d. to 2s. 6d.; winchesters, 2s. 3½d. to 2s. 5½d.; 2-lb. bottles, 2s. 4½d. to 2s. 7½d.; 1-lb. bottles, 2s. 5½d. to 2s. 8½d.; 8-oz. bottles, 2s. 6½d. to 2s. 9½d.; 4-oz. bottles, 2s. 8½d. to 2s. 11d., for 10 cwt. down to 56-lb. lots; carriage paid on minimum cwt. lots.

CITRIC ACID (B.P. CRYSTALS).—British makers' quoted price for this market is maintained at 9½d. per lb., less 5 per cent. discount, nominal and without engagement. Dealers are quoting at about the same price.

COCAINE.—British makers' prices for home trade are as follows: hydrochloride, 25 oz., 20s. 11d.; 16 oz., 21s. 7d.; and less, 22s. 3d. per oz.; pure, 25 oz., 22s. 1d.; 16 oz., 23s. 8d.; less than 16 oz., 24s. 4d. per oz.; 1-oz. tins, 2½d. per oz. extra. Export prices vary as to destination.

COUMARIN.—Prices quoted on spot continue at low figures, with the market competitive.

CREAM OF TARTAR.—The home trade quoted price for British 99 to 100 per cent. material is steady at 80s. per cwt., less 2½ per cent. discount, nominal and without engagement. Dealers' prices are about competitive.

GUAIACOL CARBONATE.—Spot offers continue well under forward prices from the Continent: two cwt., 9s. 10½d.; one cwt., 10s. 0½d.; less than one cwt., 10s. 2½d. per lb., ex wharf, duty paid.

HEXAMINE.—Cheap offers from the Continent are noted. British is quoted as follows: ten cwt., 1s. 9d.; five cwt., 1s. 9½d.; two cwt., 1s. 10d.; one cwt., 1s. 10½d.; 56 lb., 1s. 11d.; 28 lb., 1s. 11½d.; 14 lb., 2s.; 7 lb., 2s. 0½d. per lb. British rough powder is quoted from 1s. 5d. to 1s. 6½d. per lb., as to quantity.

HYDROQUINONE.—Convention prices are unchanged, with some offers rather cheaper. The position as to next year is indefinite: five cwt., 5s. 8½d.; two cwt., 5s. 9d.; one cwt., 5s. 9½d.; 56 lb., 5s. 10½d.; 28 lb., 6s.; 14 lb., 6s. 2d.; 7 lb., 6s. 6d. per lb., carriage paid.

LACTIC ACID (B.P.).—Market has been dull and is competitive for quantities: quantities in carboys, 1s. 4½d. to 1s. 5½d.; in winchesters and bottles, 1s. 6½d. to 1s. 9d. per lb., as to quantity.

METHYL SALICYLATE (B.P.).—This market is still rather dull and none too steady: one ton and over, 1s. 4½d.; ten cwt., 1s. 5d.; five cwt., 1s. 5½d.; one cwt., 1s. 6d.; less than one cwt., 1s. 6½d.; small quantities in bottles, up to 2s. per lb.

METHYL SULPHONAL.—Converted into sterling values are about level on the week. Continental prices continue at the recent reduction, with buyers given the option of purchasing on the basis of gold in French francs or Swiss francs. Based on gold the scale is as follows: two cwt., 12s. 5½d.; one cwt., 12s. 10½d.; 56 lb., 13s. 3½d.; less than 56 lb., 13s. 8½d. per lb., ex warehouse, duty paid. Converted into sterling as follows: two cwt., 18s. 5d.; one cwt., 19s. 1d.; 56 lb., 19s. 8d.; less than 56 lb., 20s. 8d. per lb.

PARAFORMALDEHYDE.—A limited inquiry, with the market about steady: 100 per cent. powder, quantities in kegs, 1s. 3d. to 1s. 3½d.; smaller parcels, up to 1s. 6d. per lb.

PHENACETIN.—Business is restricted and spot offers are being made under the usual scale: crystals, ten cwt., 4s. 1½d.; five cwt., 4s. 3d.; two cwt., 4s. 4½d.; 56 lb., 4s. 6d.; less than 56 lb., 4s. 9d. per lb., carriage paid on minimum cwt. lots.

PHENAZONE.—The Continental new scale of prices, based on gold, is as follows: crystals, 5 cwt., 6s. 7½d.; 2 cwt., 6s. 9½d.; less than 2 cwt., 6s. 11d. per lb., powder extra. Converted into sterling on an exchange of 84 francs they work out as follows: 5 cwt., 9s. 9½d.; 2 cwt., 10s.; less than 2 cwt., 10s. 2½d. per lb.

PHENOLPHTHALEIN.—Market is dull and some cheap sellers are noted: two cwt., 4s. 7d.; one cwt., 4s. 8d.; 28 lb., 4s. 11d.; 14 lb., 5s. 2d.; 7 lb., 5s. 5d.; smaller parcels, up to 5s. 8d. per lb.

PHENYL ETHYL BARBITURIC.—Prices are keenly competitive, with business slow: small parcels, about 30s. per lb., and less for bulk quantities.

POTASSIUM PERMANGANATE (B.P.).—A steady business in small quantities; dealers' prices maintained: quantities in two-cwt. drums, 9d. to 9½d.; druggists' parcels, 9½d. to 10d. per lb., as to quantity.

POTASSIUM SULPHOGUAIACOLATE.—Forward prices from the Continent as follows: two cwt., 6s. 4½d.; one cwt., 6s. 6½d. per lb., ex wharf, duty paid. Spot sellers at lower prices.

PYROGALLIC ACID.—Values are quoted unchanged; market quiet: 56 lb., 7s.; 28 lb., 7s. 3d.; 14 lb., 7s. 9d.; 7 lb., 8s. 6d. per lb., in 7-lb. tins.

QUININE SALTS.—The Convention prices for the salts were recently reduced on improved sterling exchange rates, as follows: sulphate, 1s. 11d.; bisulphate, 1s. 11d.; ethyl carbonate, 2s. 6d.; salicylate, 2s. 6½d.; phosphate, 2s. 11½d.; hydrochloride, 2s. 4½d.; bihydrochloride, 2s. 8d.; hydrobromide, 2s. 4½d.; bihydrobromide, 2s. 8d.; valerianate, 2s. 11½d.; hypophosphite, 3s. 2½d.; alkaloid, 2s. 8½d. per oz., carriage paid on bulk quantities.

RESORCIN.—Foreign material on spot is scarce. British material is quoted as follows: crystals, one cwt., 4s. 11d.; 56 lb., 5s.; 28 lb., 5s. 1d.; 14 lb., 5s. 3d.; 7 lb., 5s. 6d.; less than 7 lb., 6s. per lb.

SALICYLIC ACID (B.P.).—Business has been quiet; quoted unchanged: one ton, 1s. 7d.; ten cwt., 1s. 7½d.; five cwt., 1s. 8d.; one cwt., 1s. 8½d.; 28 lb., 1s. 9d.; 14 lb., 1s. 10d.; 7 lb., 2s. per lb.

SALOL.—Only a small inquiry on the market; quoted unchanged: spot, crystals, two cwt., 3s. 10d.; one cwt., 3s. 11½d.; 56 lb., 4s.; smaller parcels, 4s. 1d. per lb.; powder, 2d. per lb. extra.

SANTONIN.—There is now a free and competitive market with but very little business being done. Consumers are only buying for their immediate requirements.

SODIUM BENZOATE (B.P.).—A fair inquiry, with prices about steady but competitive for quantities: in bulk, 1s. 6½d.; cwt. lots, 1s. 7d.; smaller parcels, up to 1s. 9d. per lb.

SODIUM DIETHYLBARBITURATE.—Business is rather quiet; prices are maintained on quotation: spot, one cwt., 13s.; 56 lb., 13s. 3d.; 28 lb., 13s. 6d.; 14 lb., 13s. 9d.; 7 lb., 14s.; smaller parcels, up to 15s. per lb.

STRYCHNINE SALTS.—Makers' prices are as follows:—

	Under 16 ozs.	16 ozs.	35 ozs.
	Per oz. s. d.	Per oz. s. d.	Per oz. s. d.
Pure cryst.	2 7	2 5½	2 5
Pure precip.	2 6	2 4½	2 4
Arseniate	2 7	2 5½	2 5
Bisulphate	2 1	1 11½	1 11
Hydrochloride	2 4	2 2½	2 2
Hypophosphite	4 8	4 6½	4 6
Nitrate	2 2	2 0½	2 0
Phosphate	3 0	2 10½	2 10
Sulphate	2 3	2 1½	2 1

25-oz. tins free. Lower prices for contracts, with rise and fall clause.

SODIUM SALICYLATE (B.P.).—Market remains dull and rather unsteady. Position as to next year is indefinite: home trade, powder, one ton, 2s. 0½d.; ten cwt., 2s. 1d.; five cwt., 2s. 2d.; one cwt., 2s. 3d.; 28 lb., 2s. 4d.; 14 lb., 2s. 6d.; 7 lb., 2s. 7d.; 1 lb., 2s. 8d. per lb.; with crystals one penny per lb. extra.

SULPHONAL.—With exchanges about level on the week, prices in sterling are steady. Based on gold the scale is as follows: crystals, two cwt., 10s.; one cwt., 10s. 5d.; 56 lb., 10s. 7d.; less than 56 lb., 11s. 1d. per lb.; powder, 1½d. gold per lb. extra, ex warehouse, duty paid. Converted into sterling on the French franc they work out as follows: crystals, two cwt., 14s. 9d.; one cwt., 15s. 5d.; 56 lb., 15s. 8d.; less than 56 lb., 16s. 5d. per lb.; powder, 2 cwt., 15s.; one cwt., 15s. 7½d.; 56 lb., 15s. 10½d.; less than 56 lb., 16s. 7½d. per lb.

TARTARIC ACID (B.P. CRYSTALS).—The home trade price quoted by British makers is quite steady at 1s. 0½d. per lb., less 5 per cent. discount, nominal and without engagement. Dealers' prices are competitive.

THEOBROMINE.—Continental material is quoted at the reduced figures recorded last week. Pure, 250 lb., 6s. 2½d.; 100 lb., 6s. 4½d.; 50 lb., 6s. 6½d.; less than 50 lb., 6s. 9d. per lb. Sodium salicylate, 250 lb., 6s. 0½d.; 100 lb., 6s. 1½d.; 50 lb., 6s. 2½d.; less than 50 lb., 6s. 3½d. per lb. Packages from 5 lb., and upwards free.

THYMOL.—Occasional small inquiry, with values unchanged: synthetic, fine white, one cwt., 5s.; 56 lb., 5s. 1½d.; 28 lb., 5s. 3d.; 14 lb., 5s. 6d. per lb.; ex ajowan seed, one cwt., 7s. 3d.; 56 lb., 7s. 4½d.; 28 lb., 7s. 6d.; 14 lb., 7s. 9d. per lb.

VANILLIN.—Some moderate business is reported, with quoted prices now fairly steady: ex guaiacol and ex clove oil, ten cwt., 14s. 6d.; five cwt., 14s. 9d.; three cwt., 15s.; one cwt., 15s. 3d.; 56 lb., 15s. 6d.; 28 lb., 15s. 9d.; 14 lb., 16s.; less, 16s. 3d. per lb.

Crude Drugs, etc.

ACONITE ROOT.—Dealers are offering Napellus at 62s. 6d. and Japanese at 52s. 6d. per cwt., spot.

AGAR.—As quoted the market is fully steady; business limited: spot, Kobe, No. 1, 1s. 11d.; No. 2, 1s. 9d.; Yokohama, No. 1, 1s. 9d. per lb.; shipment, Kobe, No. 1, 1s. 8d.; No. 2, 1s. 6d.; Yokohama, No. 1, 1s. 6d. per lb., c.i.f.

BALSAMS.—The demand for *Tolu* remains quiet, with spot holders quoting in the region of 2s. 5d. to 2s. 6d. per lb., as to quantity.

BELLADONNA.—A scarcity of good test root continues with prices nominal; shipment offers run from 57s. 6d. to 60s. per cwt., c.i.f., quality not stated. Leaves, 60s. per cwt., spot.

BUCHU.—The market is steady but of small account. Good green rounds, 10½d. to 11½d.; yellowish to fair, 8½d. to 9½d.; ovals, 7½d. to 8d. per lb.

BURDOCK ROOT.—Spot root is being quoted at about 55s. per cwt.

CAMPHOR.—Prices are maintained on a dull market: spot, slabs, 2s. 2d.; flowers, 2s. 3d.; tablets, 2s. 5½d. per lb.; shipment, slabs, 1s. 10d.; flowers, 1s. 10½d.; tablets, 2s. 1½d. per lb., c.i.f. English refined is quoted unchanged: flowers, one cwt., 3s. 1d.; 28 lb., 3s. 2d.; small lots, 3s. 3d. per lb. Transparent tablets, 4 oz., 8 oz. and 16 oz., 3s. 4d.; 1 oz. and 2 oz., 3s. 5d.; ½ oz., ¾ oz. and 1 oz., 3s. 6d. per lb.; special prices for contracts for quantities.

CARDAMOMS.—Spot inquiry for bleached Mysore, but there are very few lots available.

CASCARA SAGRADA.—A few small spot orders recorded, with the price about 36s. 6d. per cwt.

CASTOREUM.—It is reported that following last week's sales considerable business has been transacted.

CELERY SEEDS.—New seed is quoted in the region of 155s. per cwt.

CHAMOMILES.—Market continues firm, with supplies short: quoted from 260s. to 280s. per cwt., as to quality.

CLOVES.—Business has been slow, market steady. Zanzibar, spot, 5½d.; shipment, January-March, 4½d. per lb., c.i.f.

The landings of Zanzibar in London during the week ended December 2 were 200 and the deliveries 112, leaving a stock of 3,262. From January 1 to date, landings of Zanzibar have been 6,488 and the deliveries 5,240. Landings of Madagascar for the week ended December 2 were 50, and the deliveries 37, leaving a stock of 1,001. Landings of Madagascar this year to date have been 108 and the deliveries 263.

COD-LIVER OIL.—Exports of Norwegian oil to December 9 totalled 97,000 barrels. Production last season amounted to 77,531 barrels. The shipment market for finest Lofoten steam refined non-freezing medicinal oil is rather easier at about 97s. 6d. per barrel, c.i.f. Spot, from 135s. to 138s. per barrel, ex wharf. Newfoundland finest non-freezing medicinal oil, 132s. 6d. per barrel, ex store. British oil, non-freezing,

finest medicinal quality, is being quoted by the makers at 125s. per barrel, c.i.f. London.

COLCHICUM.—Dealers holding spot supplies are quoting seed at 1s. 6d. per lb. for small lots.

ERGOT.—Spanish is quoted steady at 1s. 7½d. to 1s. 7½d. per lb., c.i.f., but more interest is being shown in Portuguese, which is quoted slightly cheaper. Russian is nominal, with no offers coming through.

FENNEL SEEDS.—Dealers are quoting spot supplies at about 26s. 6d. per cwt.

GELATIN.—A fair business is reported, with prices steady and tending to harden in due course: German, gold leaf, 2s. 4d.; silver leaf, 2s. 2d.; bronze leaf, 1s. 10d.; plain label, 1s. 8½d. French, gold leaf, 1s. 10d.; silver leaf, 1s. 8d.; bronze leaf, 1s. 6½d. per lb., in cwt. cases.

GENTIAN.—Market has been quieter, with French root about 54s. to 55s. per cwt.

GINGER.—The market is about steady, but business is quiet. West African, spot, 19s. 6d.; for arrival, 16s. 6d. per cwt., c.i.f.

GRAINS OF PARADISE.—The spot value is mentioned in the region of 47s. 6d. per cwt.

GUM ACACIA.—Business is moving slowly, with prices on a low level.

HENNA LEAVES.—Spot supplies are very scarce. Trade badly disorganised by uncertainty as to amount of duty payable. Prices nominal.

HONEY.—There has not been much doing this week, but holders' prices are fully maintained. Jamaican, pale set amber, 50s. to 52s.; dark amber, 42s. to 42s. 6d.; dark liquid manufacturing, 40s. per cwt.

MENTHOL.—This market is still lacking normal business, but the shipment market tends to be firmer with rather dearer cables from Japan. K/S brands, spot, 9s. 6d., and less for bulk quantities; shipment, November-December, 7s. 7½d.; January-March, 7s. 7½d. per lb., c.i.f. Goods afloat, 7s. 7½d. to 7s. 9d., as to position.

MERCURY.—The market has been quiet but prices are quite steady. Spanish-Italian, spot, £9 11s. to £9 16s. per bottle, ex wharf. Shipment, on the basis of £9 6s. per bottle, f.o.b. Continent.

OPIUM.—Reports indicate that the Smyrna market is still advancing, due to the activities of the official control, with the price now over the equivalent to 1s. 1d., c.i.f. Spot is nominal at rather more than 1s. 2d. per unit, landed and duty paid.

PEPPER.—Values are quoted slightly dearer on the week and the market is steadier. Lampong, spot, 4½d.; shipment, January-March, 3½d.; March-May, 3½d., c.i.f. Tellicherry, spot, 5d.; shipment, January-March, 37s. 6d., c.i.f. Aleppy, spot, 4½d.; shipment, January-March, 35s. 6d., c.i.f. White Muntok, spot, 6½d.; shipment, January-March, 5½d.; March-May, 5½d., c.i.f.

PIMENTO.—The market is quite steady; business limited. Spot, 2½d.; shipment, January-March, 25s. per cwt., c.i.f.

PSYLLIUM SEED.—Small parcels on spot are available at about 9½d. per lb.

QUASSIA CHIPS.—Dealers' prices for limited quantities are at about 20s. per cwt.

RUBBER.—Values for all positions show a further advance this week. Standard ribbed smoked sheet, spot, 4½d.; December, 4½d.; January, 4½d.; February-March, 4½d.; April-June, 4½d.; July-September, 4½d.; October-December, 4½d. per lb.

SAFFRON.—Dealers' prices are quoted cheaper this week: spot, prime B.P., 50s. 6d.; extra B.P., 49s. 6d.; super B.P., 46s. 6d. per lb., and slightly less for bulk quantities.

SARSAPARILLA.—Quite a fair spot business in small lots reported, market steady: spot, native mixed colours, 1s. 1d. to 1s. 2d.; grey Jamaican, 1s. 9d. to 1s. 10d. per lb., as to quantity.

SEEDS.—**ANISE.**—Spot. Spanish sold at 54s.; Bulgarian, 42s.; and Turkish poor quality, 39s. **CORIANDEK.**—For shipment price remains firm at 12s. 9d., c.i.f., for 1933 crop. Spot, sellers offering at 15s. 9d., duty paid. Wormy, 14s. 6d., business done. **CUMIN.**—No Malta on spot, business reported done for shipment at 47s. 6d., c.i.f. Morocco quoted at 55s., spot; shipment, 52s. 6d., c.i.f. **CARAWAY.**—Market weaker, Dutch on spot offering at 51s., duty paid. **FENUGREEK.**—Tunisian spot, 15s., and Morocco, 13s., duty paid. **LINSEED.**—Spot prices are Morocco, 21s. 6d.; Persian, 16s. 6d.; Bombay, 14s. 6d. **MUSTARD.**—English, 21s. to 30s., according to quality.

SENEGA.—The spot market is dull and a point easier at about 1s. 5½d.; shipment nominal at about 1s. 4½d. per lb., c.i.f.

SENNA.—The market has been quieter, with values for Tinnevely leaves unchanged. Finest selected bold at 10d.; No. 1 at 6d.; No. 2 at 4d.; No. 3 at 3½d., and off-colour at lower prices. Occasional inquiry for medium quality hand-picked Alexandrian pods.

SHELLAC.—Prices quoted show a sharp advance on the week, market very steady. Spot, standard TN orange, 76s. to 80s.; fine orange, 70s. to 120s.; pure button, 85s. to 90s. per cwt. For delivery, TN, December, 77s.; March, 75s. 6d.; May, 75s. 6d. For arrival, TN, December-January, 70s. per cwt., c.i.f.

SQUILL.—Dealers' prices for limited supplies of good white are steady at fully 35s. per cwt.

STRAMONIUM LEAVES.—Italian leaves are now quoted up to 60s. per cwt., c.i.f.

TRAGACANTH.—The landings for November totalled 648 packages, deliveries out of warehouse 891 packages, leaving stocks at 5,487 packages, as compared with 12,056 packages in 1932 and 11,472 packages in 1931. This week there has been a steady business in the lower grades, with prices tending dearer. Mediums have sold at steady prices. Fine whites are definitely scarce. Market generally firm.

VALERIAN ROOT.—Dealers offer small lots of spot root at 55s. per cwt.

WAX (VARIOUS).—A continued demand for fatty grey Car-nauba is recorded. Markets generally are steady. CARNAUBA, fatty grey and chalky grey, 74s., duty paid; 67s. 6d. in bond; shipment, December-January and January-February, 63s. 6d., c.i.f. Primeira, limited offerings on spot at 160s., duty paid; 135s. afloat, and for January-February shipment, 120s., c.i.f. Mediana, spot supplies limited; quoted at 150s., duty paid, and 120s., c.i.f. BEES', Dar-es-Salaam, 92s. 6d., ex store; shippers reserved, quoting 87s. 6d., c.i.f. Abyssinian, spot, 92s. 6d.; 82s., c.i.f. Benguela, 92s. 6d., duty paid, and 82s., c.i.f.

Essential Oils, etc.

ROUTINE small spot orders have composed most of the business this week. Quoted prices, beyond the effects of exchange fluctuations, show small change. Japanese peppermint is a point better forward. Citronellas remain at very low figures.

ALMOND.—Business is unimportant, market steady. English, cwt. lots, 2s. 6d.; smaller parcels, up to 2s. 8d. per lb. Foreign, cwt. lots, 2s. 4d.; smaller parcels, up to 2s. 7d. per lb.

ANISE (STAR).—Market is steady, but there is not much business moving: spot, "Red Ship," in leads, 1s. 10½d.; in tins, 1s. 8½d.; in drums, 1s. 7½d.; shipment, in leads, 1s. 8d.; in tins, 1s. 6½d.; in drums, 1s. 6d. per lb., c.i.f.

BERGAMOT.—There have been a few inquiries for shipment, with the price for new crop oil about 6s. per lb., c.i.f., and old oil cheaper. Spot oil is quoted from 6s. to 6s. 3d. per lb., as to brand and quantity.

BOIS DE ROSE.—The shipment offers mentioned last week have been taken off the market. Brazilian on spot is firm at about 4s. 9d. per lb., but business is not of much account.

CASSIA.—Fully steady on spot but quieter. Spot, 3s. 8d. to 3s. 8½d.; shipment, in drums, 3s.; in leads, 3s. 1½d. per lb., c.i.f.

CEDARWOOD.—Some fair inquiry on the market. Colonial, 1s. 5d. in drums and 1s. 7d. per lb. in tins, spot. American is nominal forward and moves with the dollar exchange; spot about 1s. 6d. per lb. in drums, and less for bulk quantities.

CINNAMON LEAF.—Spot business in the Ceylon oil does not amount to much; quoted at about 2s. 8d. to 2s. 10d. per lb., as to quantity.

CITRONELLA.—It is not possible to report any improvement in this market, and values are still very low and unsteady. Ceylon, spot, in small parcels, about 1s. 8d.; shipment, about 1s. 3½d. per lb., c.i.f. Java is dull and irregular; spot, in small parcels, 1s. 10½d. to 1s. 11d.; shipment, about 1s. 4½d. per lb., c.i.f., and less for large quantities.

CLOVE.—Some small spot business, market fairly steady. Madagascar, spot, 3s. 3d. to 3s. 4d.; shipment, 2s. 7d. per lb., c.i.f.

EUCALYPTUS.—The dearer prices for Australian recorded last week are well maintained. Spot, 70 to 75 per cent., 1s. to 1s. 1d.; 80 to 85 per cent., 1s. 1d. to 1s. 1½d. per lb., as to quantity. Spanish is quoted at about 1s. 2d. per lb.

GERANIUM.—Bourbon for shipment works out at about 20s. per lb., c.i.f., with very little inquiry being received. Spot oil varies in price as to quality, with good oil about 23s. 6d. per lb., and other offers at much less. Algerian is firm for shipment at 23s. 9d. per lb., c.i.f.

GINGERGRASS.—Market has been rather dull. Spot, 5s. 4½d. to 5s. 6d.; shipment, 4s. 4½d. per lb., c.i.f.

JUNIPER BERRY.—There is not much demand at the moment. Prices vary from 3s. 2d. to 3s. 4d. per lb., as to quantity.

LEMON.—The market handling Sicilian hand-pressed new crop is still very neglected, with shipment offers in the region of 4s., c.i.f., and machine-made oil about 3s. 4d., c.i.f. Spot business is unimportant, with prices varying as to quantity and brand. Californian is steady as quoted in cents on spot; in large drums, 48 cents, and in small drums, 49 cents per lb.

LEMONGRASS.—The shipment market is reported firm, with offerings restricted at about 3s. 8d. per lb., c.i.f. Spot is quoted at about 3s. 10½d. to 4s. per lb., as to quantity.

LIME.—West Indian distilled continues to be quoted for shipment at about 28s. per lb., c.i.f. Spot lots at about 3s. 6d. per lb.

MANDARIN.—Spot and forward prices for this article vary as to quality. Spot, from 15s. 3d. to 16s. 6d., and shipment for finest oil at 16s. per lb., c.i.f., and other offers at much less.

ORANGE.—Business in this article has not amounted to much this week, but prices are about unchanged. Sicilian sweet, new crop, 5s. 4d. to 5s. 6d., c.i.f., as to brand; bitter, new crop, 4s. 2d. to 4s. 4d., c.i.f. Spot business is negligible, with prices varying as to quality at former rates. French Guinea oil, shipment, about 2s. 1d., c.i.f., and small spot lots about 3s. 2d. per lb. Californian is steady and in limited demand; one case, 61 cents; two or more cases, 56 cents per lb.

PALMAROSA.—Market has remained dull. Spot, about 6s. 3d. to 6s. 6d.; shipment, about 5s. 9d. per lb., c.i.f.

PEPPERMINT.—Although business has shown no substantial improvement the market is steadier on account of rather higher cables from Japan. Spot, about 3s. 3d.; shipment, November-December, 2s. 7½d.; January-March, 2s. 7½d. per lb., c.i.f. The American natural oil in drums is firm for shipment in the region of 2 dollars 55 cents per lb., c.i.f., but business is lacking in any quantity.

PETITGRAIN.—Some small spot business. Spot, 4s. 9d. to 4s. 10d. per lb., as to quantity; shipment, about 4s. 3d., c.i.f.

ROSEMARY.—Some few inquiries are on the market. Best quality Spanish from 1s. 6d. to 1s. 7d. per lb. French, about 3s. 6d. per lb., spot.

SASSAFRAS.—Rather more business, but done at keen prices. Spot varies from 3s. to 4s. 9d. per lb., as to quantity. Artificial oil at cheaper prices.

SPEARMINT.—Market is dull and rather unsteady. Spot, 6s. 3d. to 6s. 6d. per lb.; shipment nominal, moving with dollar exchange.

WORMSEED.—Spot supplies are available at about 10s. 3d. per lb., and slightly less for bulk lots; shipment is nominal in the region of 8s. 9d. per lb., c.i.f.

Fixed Oils, etc.

VALUES are being fairly well maintained at recent low levels, an exception being palm oils, which are now quoted very cheaply. Linseed oil is steady and American turpentine is quoted at rather better prices. **ACID OILS.**—Market is steady but dull: coconut and/or palm kernel, 17s. 3d.; groundnut, 16s. 3d.; soya, 15s., spot. **CASTOR.**—A limited business with quoted prices maintained: pharmaceutical, 39s.; first pressings, 34s.; second pressings, 31s. (barrels); cases, £4 per ton extra, ex mills. Hull, in not less than one-ton lots; Bombay, 23s. 3d. (drums); Madras, 23s. 6d. (drums), c.i.f. **COCONUT.**—Values are about level on the week, business limited: deodorised, 25s. 3d. (barrels), spot; Ceylon, 14s. 9d. (drums), c.i.f. **COTTON.**—A further reduction in prices is recorded and business is slow: deodorised, 20s. 10½d.; common edible, 19s. 3d.; soapmaking, 18s. 9d.; crude, 16s. 6d. (barrels), spot. **GROUNDNUT.**—Quoted slightly easier on a slow market: deodorised, 27s. 9d. (barrels), spot; crude Oriental, 23s. 6d. (drums), c.i.f. **LINSEED (RAW, NAKED).**—The market is steady with values well maintained on the week: on spot, 20s. 3d.; December, 18s. 9d.; January-April, 18s. 10½d.; May-August, 19s. 3d. Boiled oil, spot, 22s. 6d. **OLIVE.**—Rather more inquiry with the market quoted at former prices: edible, in tins and cases, 70s. per case of ten gallons; B.P., 4s. 6d. per gallon, in 40-gallon barrels. **PALM.**—Prices have now reached a very low level, but business is limited; market steady: Lagos, 15s. 1½d., c.i.f.; softs, 12s. 9d., spot; medium, 13s. 1½d., c.i.f.; hards, 13s. 6d., c.i.f.; bleached, 16s. 4½d., spot. **PALM KERNEL.**—Fairly steady but business is slow: deodorised, 27s. 3d.; crude, 19s., spot. **RAPE.**—The market is easier, with the demand poor. Refined, 30s.; crude, 28s. 6d. **RESIN.**—The market has been dull: B, 12s.; D, 12s. 3d.; F/G, 12s. 6d.; N, 13s. 9d.; W/G, 14s.; W/W, 14s. 9d. per cwt., ex wharf. **SOYA.**—Business is quiet and values are again slightly easier: deodorised, 25s. 9d.; crude, 21s. 3d., spot. **TURPENTINE, AMERICAN.**—The market is steady at slightly better prices. Total London stocks, 18,161 barrels. On spot, 43s. **WOOD.**—Hankow in barrels is rather steadier at about 46s. 6d. on spot.

Coal Tar Products, etc.

ARTICLES such as toluol, xylol and solvent naphthas continue firm at high prices with supplies short. Cresylic acid and creosote are very steady. Pitch has been dull so far this season and is rather easier. It is reported that prices for next year for carbolic acid crystals will be cheaper. **BENZOL.**—Market is steady as quoted with average business: standard motor 90's, 1s. 5½d. to 1s. 6d. per gallon, in tank wagons, ex works; pure, 1s. 11d. to 2s. 1d. per gallon. **CARBOLIC ACID CRYSTALS** (39° to 40° C.).—Ordinary quantities from one ton to small parcels are quoted from 9½d. to 10d. per lb., carriage paid, packages free. The Convention prices for next year are reported to be about ½d. per lb. cheaper. Crude carbolic 60's, 2s. 4d. to 2s. 6d. per gallon, at works. **CRESYLIC ACID.**—Business continues on a fair scale with prices very steady: pale 99 to 100 per cent., 1s. 3d. to 1s. 4d.; dark 95 per cent., 1s.; special qualities, 2s. 3d. to 2s. 6d. per gallon, ex works. American duty-free acid, 1s. 4d. to 1s. 6d. per gallon, f.o.b. **CREOSOTE OIL.**—A very fair business is reported with supplies now limited. Quoted from 4½d. to 4¾d. per gallon, f.o.r. makers' works, South England. **KEROSENE.**—Values are unchanged on a steady market: water white, 10d.; standard white, 9d. per gallon, in barrels, ex wharf, London; in bulk, 2d. per gallon less. **MOTOR SPIRIT.**—Distributors' prices for all districts continue at former rates: No. 1, 1s. 5d. per gallon, delivered in bulk for England, Wales and South Scotland; 1s. 5½d. for Belfast; and 1s. 6d. for remainder of Northern Ireland and North Scotland; 1s. 6d. for Irish Free State; with Dublin 1s. 5d. per gallon. No. 3 spirit, 2d. per gallon less, and aviation spirit, 4d. per gallon more in all cases. 1d. to 2d. per gallon more in two-gallon tins, as to district. **PITCH.**—Inquiry for this season is as yet of small account; market rather easier: quoted in the region of 70s. per ton, f.o.b. East Coast. **SOLVENT NAPHTHAS.**—The market for 90/160 is firm and again a point dearer: 90 to 160, 1s. 8d. to 1s. 9d.; heavy, 90 to 190, 1s. to 1s. 1d. per gallon, naked, at works. **TOLUOL.**—Supplies continue short and prices are firm at higher figures: commercial 90's, 2s. 10d. to 2s. 11d.; pure, 3s. 4d. to 3s. 5d. per gallon, ex works, London. **XYLOL.**—Market is firm and again dearer with commercial, 2s. 10d. to 2s. 11d.; pure, 3s. to 3s. 2d. per gallon, ex works, London.

Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1933, p. 329.

(From "The Trade Marks Journal," December 6, 1933)

- "UTONIA"; for veterinary medicines, excluding soap (2). By Chapman & Son (Grimsby), Ltd., 235 Cleethorpe Road, Grimsby. 545,573.
- "PHORISTOL BRAND" on strip design; for tablets for internal treatment of rheumatism, etc. (3). By S. Forrest, 67 Blythe Road, West Kensington. 544,609.
- "HIMALAYAN BRAIN FOOD NEOCURO" on design of mountains and trees ("Neocuro" and "Himalayan" disclaimed); for medicated foods (3). By The County Chemical Co., Ltd., Bradford Street, Birmingham, 5. 544,304.
- "KLIK" for preparations for internal treatment of headache, etc. (3). By F. C. Wood, 24 Portland Place, Brighton. 543,346.
- "GRIMEX"; for a medicated preparation for the hands (3). By A. K. Hillson, 102 Kenmore Street, Glasgow. 544,789.
- "OXYRAY"; for bath salts (3) and (48). By Premier Soap Co., Ltd., Ann Watson Street, Stoneferry, Hull. 544,936/937. (Associated.)
- "SANERVO"; for medicated food (3) and for food substances (42). By Sanervo, Ltd., Ellerby Lane, Leeds. 545,313; 542,869. (Associated.)
- "JUVIGOLD"; for medicinal chemicals (3). By The Middlesex Laboratory of Glandular Research, Ltd., 21 Farringdon Avenue, London, E.C.4. 545,552.
- "LIN-OINT-A"; for ointments and embrocations (3). By D. Grundy, 71 Woodsmoor Lane, Stockport. 545,581.
- "ERYTHOID"; for medicinal chemicals (3). By Oxo, Ltd., Thames House, Queen Street Place, London, E.C.4. 545,856.
- "NODAN"; for medicinal chemicals (3). By F. H. Johnson, 39 Adolphus Road, London, N.4. 545,874.
- "NOCTASOL"; for perfumery, etc. (48). By A. S. Morgan, 34 Osnaburgh Street, London, N.W.1. 545,040.
- "OLISINOL"; for toilet preparations for the hair (48). By Rosa L. Ruff, 36 Penton Street, London, N.1. 545,454.

Correspondence

Letters should be written on one side of the paper only. Correspondents may adopt an assumed name, but must in all cases furnish their real name and address to the Editor

Irish Free State Registered Druggists

SIR,—In my letter dated June 17, 1933, to Mr. George Darlington, the spokesman of the deputation claiming to represent the registered druggists, I wrote:—"There is no question of the fact that registered druggists may sell D.D.A. poisons provided they comply with the D.D.A. Regulations." If that did not make it clear that the Council recognised the rights of registered druggists to sell D.D.A. drugs, I do not know what other form of words would. If Mr. Dillon will purchase a copy of the D.D.A. Bill (price 4d.), which is at present before the Dail, he will find that the *status quo* as regards the rights of registered druggists is strictly upheld.—Your obedient servant,

JAMES J. KERR, M.P.S.I., P.C.

Registrar, Pharmaceutical Society of Ireland.

67 Lower Mount Street, Dublin, C.6.

SIR,—Mr. George Darlington seems to be blessed with a fertile imagination. In support of his theory that a registered druggist is qualified to fill the responsible position envisaged in the Council's resolution of May 9, he writes (*C. & D.*, December 2, p. 685) that the R.D. is "examined as to the mode of preparation, the dose, if any, of the preparations contained in the B.P." If we consider this statement, we find that it grossly exaggerates the educational requirements of candidates for the Registered Druggist examination. The statutory obligations for one who wishes to obtain the Society's certificate of competency to sell the scheduled poisons are as follows:—"He (the candidate) shall be examined with respect to his knowledge of English orthography and composition, arithmetic, and the weights and measures of the British Pharmacopoeia, the appearance and properties of the various drugs and chemicals in general use" (and the Sale of Poisons Act). Mr. Darlington maintains that a R.D. is legally entitled to do certain things. I submit that it would be more correct to state that legally he may not be prevented from doing certain things, and that as far as the wholesale manufacturing or compounding of medicines is concerned it is a matter of taking advantage of a legal loophole rather than exercising a legal right. A registered druggist is qualified to sell the scheduled poisons; and in keeping open shop for selling, retailing or mixing poisons the average druggist in retail business honourably accepts the limitations of his qualification. But when we examine the question of wholesale dealing in poisons we find a strange anomaly. A clause in the Pharmacy Act exempts wholesale dealers in poisons from the general restrictions of the Act. And it is a matter of public interest and in accordance with the legitimate rights of pharmaceutical chemists that this state of affairs should be remedied. The resolution adopted by the Council of the Pharmaceutical Society of Ireland aims at securing a measure of supervision and control over the manufacture, wholesale sale and distribution of an important group of poisonous drugs.

Yours truly,

J. A. O'ROURKE, M.C., P.S.I. (12/12).

97 Lower Georges Street,
Dun Laoghaire.

Unauthorised Publication

SIR,—In your issue of November 18, under "Trade Notes," White's Cod Liver Oil Concentrate tablets received your favourable notice. We sent to you with other literature a report relating to the tablets from Dr. Katherine Coward of the Pharmacological Laboratories of the Pharmaceutical Society. Our attention has been called to the fact that in 1931 we signed a form agreeing not to make any public mention of the Laboratories or their personnel. We did not regard publication in *THE CHEMIST AND DRUGGIST* as other than a communication to those engaged in pharmacy, as distinct from the lay

public. As the Pharmaceutical Society finds itself unable to accept our view of what constitutes a "public use" of their reports we regret that the report should have been sent by us.—Yours faithfully,

W. E. G. HUGGETT,
Managing Director,
White's Laboratories, Ltd.

Westminster, S.W.1.

A Medical Menace

SIR,—You do well to direct attention to the menace of the Public Medical Service proposals (*C. & D.*, December 9, p. 705). There is a real danger that chemists' interests may suffer if these schemes are universally adopted. One of the proposals is that the medical needs of the non-insured population shall be met by an arrangement which is a reversal to the old club-practice methods, in which the doctor provided medicine and advice for so many coppers a week. It is a long way back to the introduction of the first National Insurance Act; but the principles then established have now flourished for twenty years, and for a large proportion of the working-class population the chemist's shop has become the one place where drugs and medicines, dressings and surgical appliances necessary in connection with their medical treatment have been obtained. Chemists think that insured persons have appreciated this arrangement. But proposals by doctors to establish schemes formulated and administered by doctors, whereby drugs and dressings will be provided by them threatens all we have gained through the years during which N.H.I. has been growing to its majority. Matters cannot be allowed to rest where they are. Chemists must take it upon themselves to enlighten the public as to the meaning of some of these proposals. We are told that in London 900 doctors are glad to undertake family treatment at 4d. a head a week. Do the participants really imagine that such things as liver extract, vaccines, insulin and gland preparations will all be as readily available under a P.M.S. scheme as they are under the N.H.I. scheme? One can prophesy that they will not be frequently prescribed, for the worst aspect of the proposals is that in all probability the needs of the patient will be estimated by the capacity of the practitioner to provide the remedies out of the money subscribed; thus we shall get the stock-mixture treatment of the old club days. If these Public Medical Service schemes have a wide acceptance among the dependants of insured persons and other people outside the N.H.I. scheme, we shall soon have the doctors undercutting us in competition for the N.H.I. contract for insurance dispensing. We have suffered enough in the process of establishing these principles; let us at least maintain the present position. Early and definite action is essential. Will the N.P.U. give us a lead?—Yours, etc.,

CLARION (11/12).

Deductions from Scottish Insurance Accounts

SIR,—There are a great many complaints against the Scottish Standing Committee for their complacency and inaction while panel chemists all over the country are being shamefully treated. In the name of national economy the Standing Committee reiterates the yearly call of *status quo*. The economy cut was bad enough; but when doctors are being asked to order a month's medicine at a time, so that the insurance funds may be increased at the expense of chemists' fees, I think one is justified in describing this as departmental extravagance. It is over-prescribing of the worst kind, for there is no certainty that any patient will need a month's supply. Take the case of a prescriber ordering 1,200 units of insulin at a time. According to a proviso in the list, the amount of the fee to be added to insulin shall not exceed 2s. 6d.; 1,200 units cost 18s. plus 2s. 6d. = 20s. 6d. plus 5d. = 20s. 11d., from which falls to be deducted 6.3 per cent. = approximately 1s. 4d., leaving the

princely sum of 1s. 7d., and the chemist has to pay carriage or order a large quantity. Then he has to wait about three months for payment. Again, I have been called upon to dispense two powders at 3 a.m. for a fee of 2½d. less 6.3 per cent., and I could give many more examples. One might say it is all in the day's work. Sensible prescribing is also understood to be in the day's work. The Standing Committee ought to demand the deletion of the 2s. 6d. maximum for therapeutic substances fee, and demand that no doctor shall prescribe more than a week's supply of any medicine at one time. Those who are in comfortable circumstances evidently do not realise (or care) that the mass of Scottish chemists are undergoing serious hardship.—Yours, etc.

REBEL (11/12).

Shape of Dispensing Weights

SIR,—I have suggested to a representative of one of our leading wholesale houses that they should make sets of apothecaries' weights after the same style as metric weights—i.e., cylindrical, with knobs, fitted into a box and provided with tweezers for lifting. I would like to know what are the views of other chemists. I certainly think that it would be much better than the present method of throwing the weights into a drawer, especially as one could immediately see if any weights were missing.—Yours sincerely,

ELLIOT A. ORLANS.

Stoneycroft, Liverpool.

Bottles

SIR,—The letter on "Bottles," which appears in your issue of December 9 (p. 716), reminds me of an incident that happened the other day. A woman presented an insurance prescription for a 12-oz. bottle of medicine, and brought a bottle of only 8-oz. capacity as a container. This bottle had the name of a multiple firm of chemists blown in the glass; it could not, therefore, be taken in part exchange, and the insured person was informed that a full deposit of 2½d. was required. Her reply was interesting. She contended that, having paid a deposit of 2d. on the bottle, she was entitled to have it exchanged for a suitable container at any chemist's shop in the country where insurance dispensing was undertaken. She refused to bring a larger bottle, or to pay any deposit. The practice, which is pretty general, of having name-plates for bottles certainly aggravates the problem of returned empties. Would it not be more convenient, both for chemists and patients, if all bottles supplied to insured persons were of a standard pattern, and bore the name and address of the chemist on the label only?—Yours truly,

BERNARD W. GILL.

Nottingham.

Inspectors and Certificates

SIR,—One's patience is often tried to the limit in reading the reported speeches of our councillors at local association meetings, but I suggest that those recently uttered are beyond the limit. Straws are said to be indicators of the direction of the wind, so I presume the remarks I was referring to indicate the mind and purposes of our future masters. The new inspectors, at our expense, are going to be at first "advisers"—of what is not stated—and then later to do their inspection. As regards the latter I have two matters of interest to show; one is a complete range of packed pharmaceutical preparations in the window of a grocer near by, and the other is the famed "Exit" ["Egress"?] of the old American menagerie. With regard to the new certificate of membership, no doubt the Council is proud of the design, but what other society would show its hand in a like manner? I am undecided whether the announcement that "this Certificate is the property of the Society" has been copied from the prescription-form of the N.H.I. or taken from the deckchairs of a seaside promenade: surely a signed undertaking from a member of a society claiming professional status would be more dignified and just as effective. A little more consideration for the individual chemist and a little less of the dictatorship is badly needed at "the Square."

Yours faithfully,

TWENTY-TWO YEARS QUALIFIED (5/12).

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for, and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

V. J. S. (4/12).—HAIR CREAM.—The following formulas for hair cream are for the lime cream and the cold cream type respectively:—

I			
Beeswax ...	...	...	3j.
Japan wax ...	...	...	3lj.
Stearic acid ...	...	...	3j.
Borax ...	...	...	3lj.
Glycerin ...	...	...	3x.
Mineral oil ...	...	...	Oilj.
Water ...	...	...	3x.
Lime water ...	...	...	Oiss.

Melt the three waxes, bring the ten ounces of water nearly to the boil, add the borax, and mix together, forming an emulsion. Meanwhile, heat the mineral oil and form a temporary emulsion with the lime water. Mix and emulsify together at the same temperature.

II			
White wax ...	...	...	3j.
Liquid paraffin ...	...	...	3xv.
Water ...	...	...	2v.
Borax ...	...	...	3ss.

The chief cause of breakdown is using cheap mineral oil of low viscosity; another cause is not having the water hot enough. If using the cheaper oil substitute one ounce of it by the same amount of olive oil. Heat the wax and six ounces of oil until melted, meanwhile bring the water nearly to the boil, add the borax, and slowly pour into the heated fats, stirring briskly all the while, care to be taken because of the action of boiling water on hot oils. Stirring briskly slowly add the remainder of the oil (slightly warm) seeing that the emulsion is forming all the time. If showing signs of separation, cease the flow until incorporated—a machine will settle this difficulty, however.

C. G. (28/108).—LIPSTICK.—The following formulas for lipstick may meet your requirements:—

I		II	
White wax ...	3viij.	Benzoated olive oil ...	3xvj.
Spermaceti ...	3j.	White wax ...	3viij.
Liquid paraffin ...	3iss.	Spermaceti ...	3j.
Perfume ...	q.s.	Perfume ...	q.s.

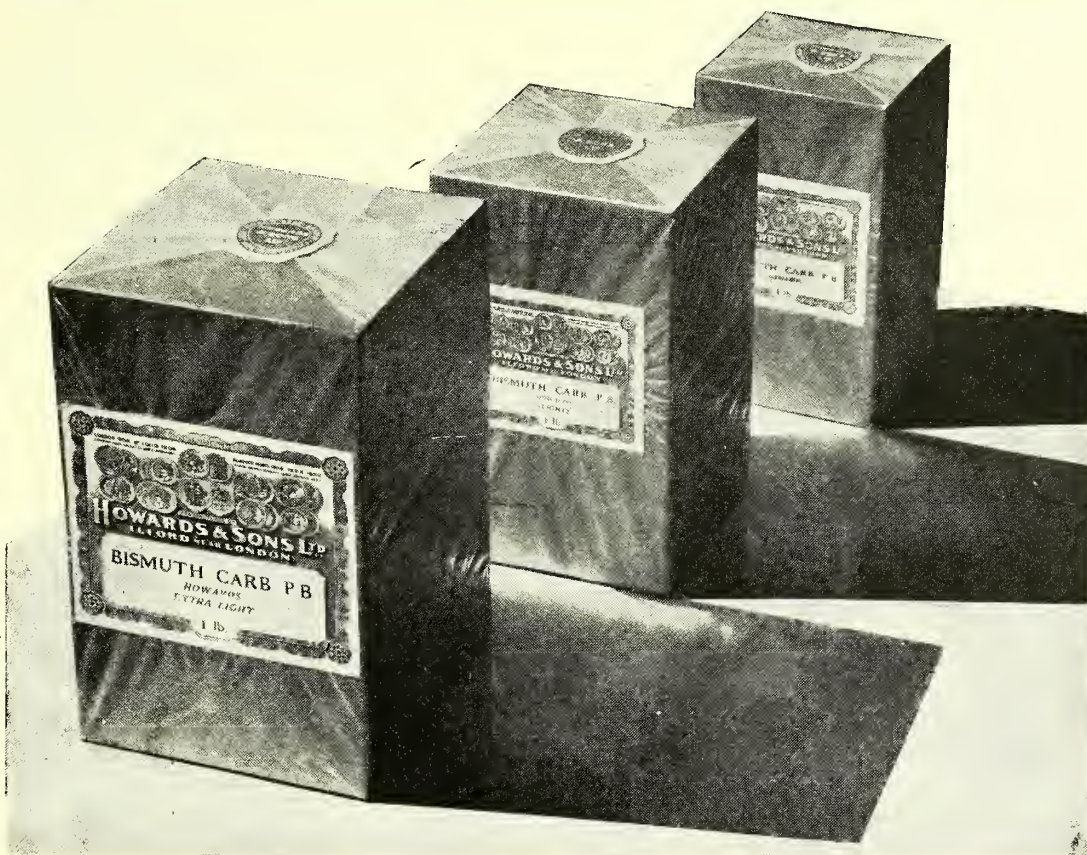
Retrospect of Fifty Years Ago

Reprinted from

"The Chemist and Druggist," December 15, 1883

John Eliot Howard, F.R.S.

John Eliot Howard was born at Plaistow, Essex, on December 11, 1807, and was the son of Luke Howard, F.R.S. . . . In the course of his researches on this subject [cinchona barks], he was made aware of the fact that a large collection of barks made by the Spanish botanist, Pavon, and also a manuscript of his, were for sale in Madrid, and in 1858 was fortunate enough to secure them both. He then devoted his energies to editing this hitherto unpublished manuscript, and employed the well-known botanical artist, Mr. W. Fitch, to go to Madrid for the purpose of making accurate delineations of Pavon's specimens in the Madrid Museum. The result was the publication (in 1862) of the magnificent folio volume entitled "Illustrations of the Nueva Quinologia of Pavon, and Observations on the Barks Described." This work has always been authoritative upon the subjects it treats of, and is long likely to remain so. . . . The first analysis that Mr. Howard made [for Sir Clements Markham] was that of some East Indian bark, sent to him on May 23, 1863. The analysis was completed in a few days, and on the 27th he obtained quinine from it, the first obtained from East Indian bark in this country. [From an obituary notice.]



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'GRIPS'
FIRST AID PASTILLES

Made by J. W. Lightbown & Sons, Ltd., Accrington

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Hormone Product prepared
from tested ingredients.

22/- AND 40/- per dozen boxes,
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Show matter available.
Literature on application.

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Parker's

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SULFLUID

Preparations

Sulfluid Standard Solution

Sulfluid Oil, Sulfluid Ointment

Price 2/6 each.

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PARKER'S SULFLUID has been recognised
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parasitic skin diseases, human and animal.

Parker Sulphur Products, Ltd.

Manufacturing Chemists and Merchants
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SCIATICA, NEURITIS,
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These Window Sets are printed in full colour—and are sent to Chemists **FREE**

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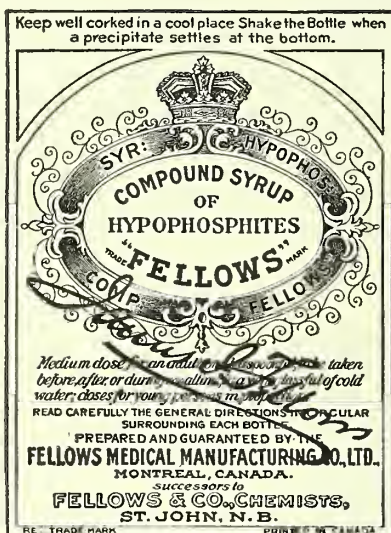
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Beecham Products never become dead stock. There are no losses on them—all damaged stock is replaced free. They are protected under P.A.T.A. regulations, yield fair profits and are the best paying propositions to handle.

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OF**DISTINCTION****WE can't make you buy
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Protective Mark
Patented in U.S. and
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Ergoapiol (Smith) is identified by the letters "M. H. S." raised in the gelatin on the inside of each capsule—thus

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Exquisitely Packed

1 lb. Glass Jars	-	-	14/- doz.
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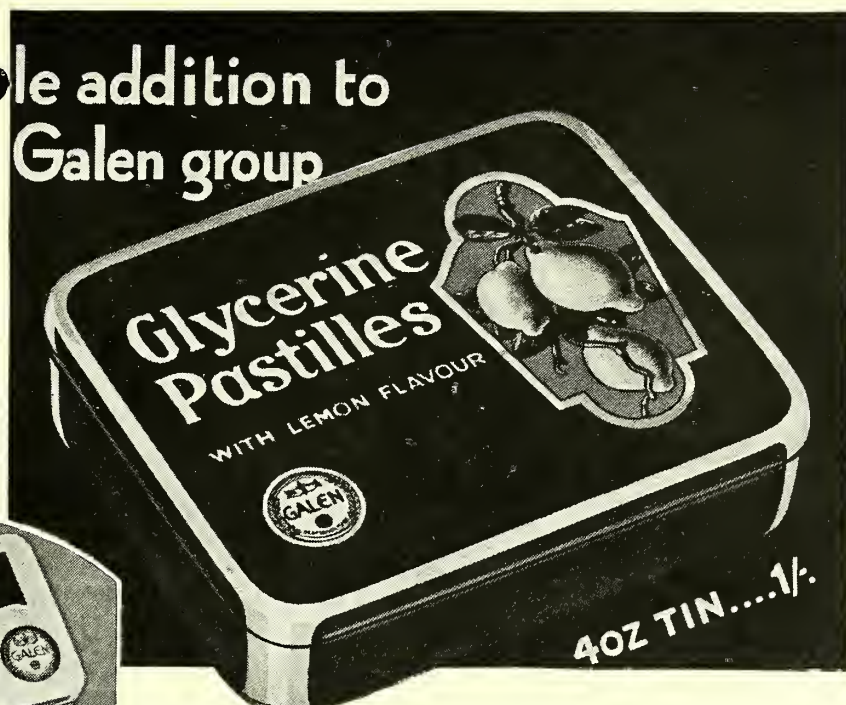
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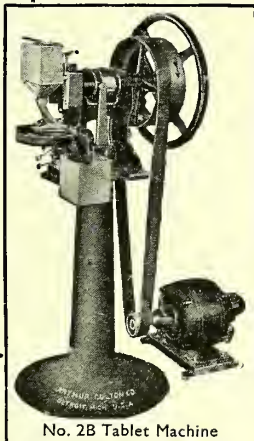
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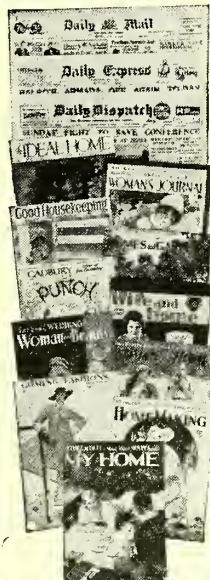
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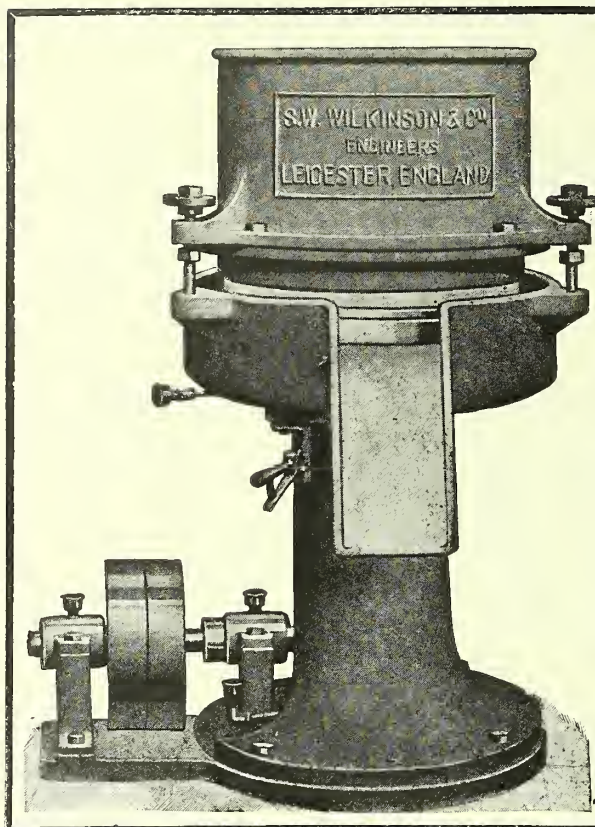
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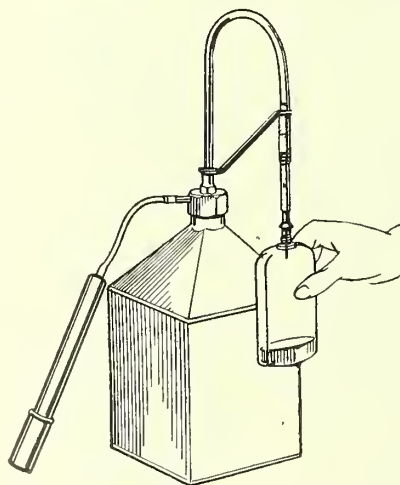
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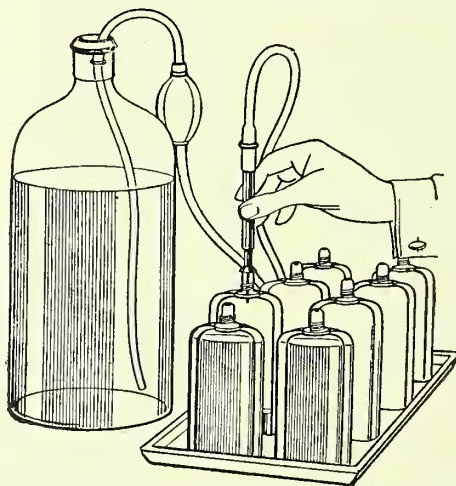
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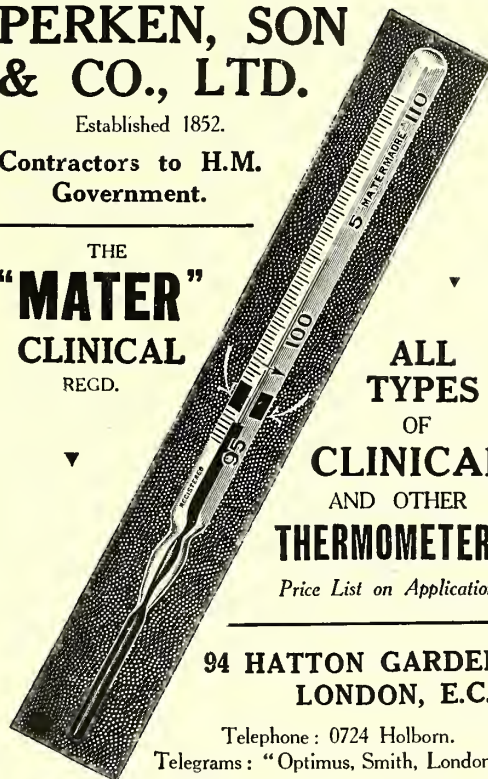
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House, please.A superior quality hygiene and a great
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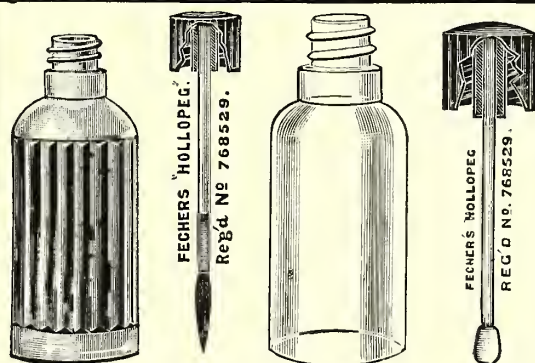
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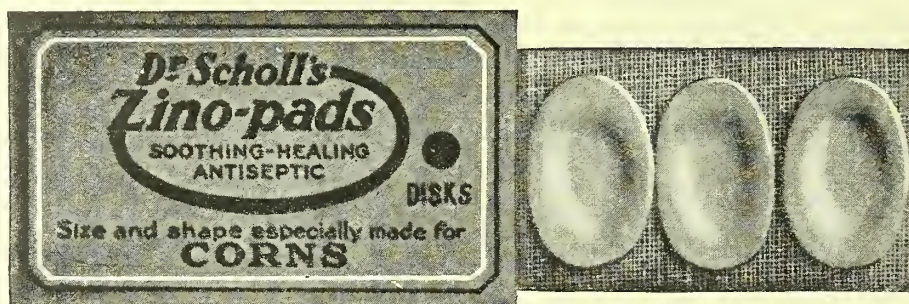
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MEDICATED DISKS HAVE PROVED THEIR VALUE

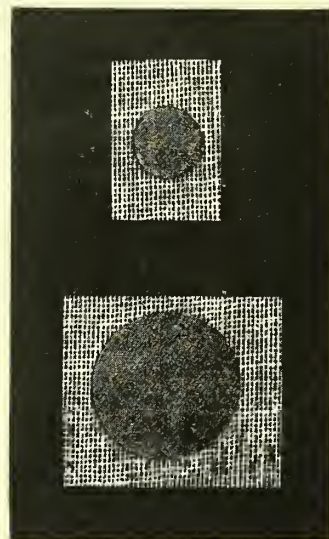
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CONSISTENTLY ADVERTISED

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The CHEMIST AND DRUGGIST SUPPLEMENT

This Supplement is inserted in every copy of The Chemist & Druggist

DECEMBER 16, 1933

28 ESSEX STREET, LONDON, W.C.2

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2.—**HARROW ROAD**.—Middle-class Retail Business with very good Panel connection; returns £2,300; exceptional profits; accountant's figures; good living accommodation; reasonable rent; long lease; genuine reason for disposal; valuation terms entertained.

3.—**ESSEX (GOOD-CLASS SUBURB)**.—Good Middle-class Retail Business with Optical connection; increasing turnover, present rate £60 per week; large shop, nicely fitted and fully stocked; new lease will be granted; the concern is situate in a growing area and has a good future; further details on application.

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7.—**CHELSEA (NEAR)**.—Light Family Retail and Dispensing Business with Kodak Agency; established 50 years; returns over £1,200 per annum; net profit £320; single-fronted shop, nicely fitted and stocked; house sublet at £77 per annum; rent £90; long lease; price £300 plus valuation of stock and fixtures.

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9.—**NOTTINGHAM**.—Business and Branch for disposal; returns approach £5,000 per annum; have been much more; both premises occupy good positions in busy main roads; in order to effect a quick transfer, vendor would accept £800 for the leases and goodwill, plus stock and fixtures at valuation; in all about £2,500; reasonable rentals, being £40 per annum and £80 per annum respectively; both concerns offer scope for increase and could be purchased separately.

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11.—**BIRMINGHAM (GOOD-CLASS SUBURB)**.—Good-class Retail Business in good position; returns approximately £20 per week; single-fronted shop, nicely fitted and fully stocked; vendor estimates stock and fixtures to be worth £720; very nice living accommodation; rent about £40 per annum; lease; price all at £625; family reasons for disposal.

12.—**SOMERSET (IMPORTANT TOWN)**.—Middle-class Retail Business offering scope for increase; returns approximately £20 per week; net profit £230 per annum; stock and fixtures worth £470; rent £55 per annum, inclusive of rates; lease; price £500 or near offer.

13.—**SWANSEA (NEAR)**.—Very Old-established Retail Business with Agricultural connection and Wine Licence; returns approach £3,500 per annum; good living accommodation with bathroom; genuine reason for disposal; reasonable purchase price; further details on application.

14.—**HERTS (FEW MILES OUT)**.—Good Medium-class Retail Business with Kodak and Ensign Agencies; net profit exceeds £400 per annum; increasing turnover; rent £60; lease; nice house available if required; genuine reason for disposal; price £350, plus valuation of stock and fixtures; in all £1,000-£1,100.

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APPRENTICESHIP.

YOUTH (20) desires Apprenticeship; Birmingham or Worcester districts; passed Inter. Bachelor Pharmacy (London). Darley, Finsall, Bromsgrove.

SITUATIONS OPEN.**RETAIL (HOME).**

ANCOATS HOSPITAL, MANCHESTER.—Chief Dispenser with M.P.S. qualifications (lady or gent.) required to commence duty on or about January 1 next; full-time appointment; luncheon and tea provided; the successful applicant will be required to join the Federated Superannuation Scheme for Nurses and Hospital Officers; previous Hospital experience essential. Applications, stating age, salary required, qualifications, experience and appointments held, together with copies of three recent testimonials, to be forwarded to the undersigned on or before Wednesday, December 20. By order of the Board, Herbert J. Dafforne, General Superintendent and Secretary.

BRISTOL.—Qualified Assistant for branch; good Window-dresser and Salesman, with knowledge of D. & P. and Enlarging. State when disengaged, experience, salary, with recent photograph, to 232/358, Office of this Paper.

LIVERPOOL SUBURB.—Junior Assistant, Unqualified, for permanency; abstainer, capable, energetic, honourable and reliable. Reply, stating age, experience, references, salary required, when disengaged, and enclose recent photo (returnable), 556/38, Office of this Paper.

NORFOLK COAST.—Qualified Chemist-Optician required about second week January; single; high-class business; write, stating age, height, experience, qualifications and salary required, which must be low; enclose recent photograph. 557/19, Office of this Paper.

AT ONCE.—Assistant, chiefly Counter and Display, for 5 weeks, possibly longer; 45s. weekly. Robertshaw, 88 Guildford Street, Chertsey.

ASSISTANT required (lady or gent.) who can produce undeniable references, for a vacancy early in the New Year; must be able to dress Windows and Counter without constant supervision, a capable Sales-hand, courteous and of good address, and one who is really interested in their work. Apply with usual particulars and swap (to be returned), "Dorset," 557/36, Office of this Paper.

CAPABLE Assistant; experienced in all branches of trade; Window-dressing and Salesmanship ability especially essential; apply in first instance by letter only, giving fullest particulars of experience, &c. Apply Flemings, Ltd., 7 London Street, Paddington, W.2.

JUNIOR or Improver (male) for good-class Retail and Dispensing business; no Sunday duty; commence January. Please state salary required and usual particulars to H. R. Camplin, Chemist, 5 West Street, Horsham, Sussex.

LADY Assistant wanted; salary 25s. per week; state age and experience; nice post for right person. Apply by letter to 307 Grange Road, South Norwood, S.E.25.

LADY General Assistant required at once. Amon, 436 High Road, Streatham Common, S.W.16.

MANAGER (about 30) required early in January; must have had sound managerial experience; good appearance and personality essential; one who will consider the advancement of business to his personal benefit; a good salary, commission and house rent free for the right man; applications not answered within seven days respectfully declined. W. E. Mason, M.P.S., 89 Acre Lane, Brixton, S.W.2.

QUALIFIED Assistant required immediately after Christmas; country business near Gloucester; chiefly Dispensing; hours: 9.30 a.m. to 12 noon, 2 p.m. to 5 p.m. and 6 p.m. to 7 p.m.; a comfortable berth for elderly or semi-retired gentleman; please state salary, &c., first letter; outdoors. 557/9, Office of this Paper.

QUALIFIED Locum required, from December 27 to January 2, inclusive. Apply personally to Marshall's, 91 West Green Road, Tottenham, N.15.

QUALIFIED Manager wanted for new branch; state full particulars, age, height, experience, references, salary required, and if married. "Lancashire," 558/3, Office of this Paper.

REQUIRED end of January, Qualified Assistant to take charge, country trade; experienced; good references. Apply, stating salary required, 557/26, Office of this Paper.

SMART Manager required for a High-class Pharmacy on the South Coast; applicants must possess personality and good all-round ability; particulars of experience, age, height, when free, and salary required. Send photograph, if possible, to 232/363, Office of this Paper.

TEMPORARY Assistant (about 25), Qualified or Unqualified, for 1 month's engagement after Christmas; only first-class man need apply. Gregory & Sons, 75 St. Thomas Street, Weymouth.

WANTED, early January, Qualified Manager, either sex, for small branch; latest references, state experience and salary required. B. O. Carr, 58 High Street, Cleethorpes.

WANTED for January 1, Qualified Manager for Midland country district branch; able to take sole charge; highest references essential; no living accommodation; state salary required. C. F. Palmer & Co., Chemists, 49 Cherry Street, Birmingham.

WHOLESALE.

ASSISTANT Sales Manager with outside experience wanted; must have some knowledge of putting proprietaries on market and have handled salesmen; fullest details in confidence; state age, salary. 555/37, Office of this Paper.

ASSISTANT wanted in Pill and Tablet Factory (London); young man preferred with experience in Tablet Manufacturing and Coating; state full particulars, including wages required; information will be regarded as confidential. 558/7, Office of this Paper.

QUALIFIED Representative required by progressive Manufacturers to call on Chemists and Doctors in Edinburgh and East Scotland; established connection to hand over; fullest particulars of past experience, age, stating whether any connection on the territory named; applicants will be required to provide their own car. 232/361, Office of this Paper.

REPRESENTATIVE required by London firm to call on Doctors, London and Provinces. Write, giving age and particulars of education, experience and remuneration required, 232/359, Office of this Paper.

REPRESENTATIVES required for Yorkshire, Lancs, Cheshire, also for Birmingham district, on a part expenses and commission basis, by a well-known manufacturer. Replies, stating lines carried, in confidence to 556/40, Office of this Paper.

REPRESENTATIVE required for London Wholesale Druggists, S.W. district; previous experience essential. Apply by letter, giving fullest particulars in confidence, age and salary required, to X.Y.Z., 232/362, Office of this Paper.

REPRESENTATIVE wanted for Northern England. Apply, giving full particulars as to age, qualifications and experience, to The Secretary, John Bell, Hills & Lucas, Ltd., "Oxford Works," Tower Bridge Road, London, S.E.1.

SITUATIONS WANTED.**RETAIL (HOME).**

A.A.A.A.—CAPABLE Manager or Senior; 14 years' experience town and country; Qualified; single; excellent references. 557/27, Office of this Paper.

A.—QUALIFIED Manager, disengaged, 20 years' experience, requires position, London or suburbs; moderate salary. Davies, 109 Alexandra Drive, Surbiton, Surrey.

A QUALIFIED Manager (29); single; tall; good education and appearance; excellent references; 10 years' good-class experience City and provincial; free for interview; Loudon or Thames Valley; Boots trained. 557/20, Office of this Paper. 'Phone: Fitzroy 1046.

A YOUNG, Thoroughly Experienced Chemist and J.C.Q.O. Optician, with excellent references, and now holding responsible post, seeks similar managerial situation where conscientious work and initiative will be appreciated. 558/8, Office of this Paper.

A S Locum, Manager or Assistant, Unqualified (32); excellent references; business builder. R. Bevers, Skinners Lane, Whitchurch, near Leicester.

A S Locum, Manager or Assistant, "not registered"; over 30 years' Loudon experience; whole or part time; Counter, Book-keeper, Dispensing and worker; London only. "Prescriber," 130 Scott-Ellis Gardens, N.W.8.

AS Manager or Assistant, Senior (35), Qualified; all-round experience; locum or temporary position. "Chemist," 50 Grove Lane, Camberwell, S.E.5. Phone: Rodney 2719.

AS Qualified Manager or Senior (38), all-round experience, West End and country, seeks position in London or South Coast; moderate; just disengaged; well recommended; absolutely capable; married. Chemist, 2 Carlyon Avenue, South Harrow.

ASSISTANT (21), Northman, Unqualified; City, Suburban and Veterinary experience; good references; disengaged January 2. Machell, 65 Melbourne Grove, East Dulwich, S.E.22.

ASSISTANT (30), Unqualified; 14 years' experience; Prescriber; manager; disengaged. K., 87 Sixth Avenue, Manor Park, E.12.

ASSISTANT (28); Referred Pharmacognosy; disengaged; 10 years' experience London and South Coast; highest references; capable of entire charge. 557/8, Office of this Paper.

ASSISTANT (24); expert Dispenser; well educated; Part I.; used to High-class Family Trade; excellent references; London, S.W. Bishop, 12 Dawnay Road, S.W.18.

AAVAILABLE LONDON.—Pharmacist; West End experience; 7 years' business control; highest references. M.P.S., 35 Butler Avenue, Harrow, Middlesex.

CHRISTMAS Engagement wanted; Qualified experienced Locum, Dispenser; 15th-30th. Harris, 46 Argyle Square, King's Cross, W.C.1. Phone: Terminus 3732.

ELDERLY Qualified Chemist (59) seeks soft billet. Scot, P.C.B. 100/6, Office of this Paper.

EXPERIENCED Lady Pharmacist (29), late proprietor, desires position, Hospital, good-class business or with Doctor; London preferred; excellent references; free. "Pharmacist," 234 Boothferry Road, Hull.

IMPROVER (19); good Dispensing, Counter experience; willing worker; Manchester or Liverpool preferred. R. Haskayne, 25 Westcroft Road, Withington, Manchester.

JANUARY.—Lady M.P.S. (28) desires Full or Part-time London Post; best English and Continental experience; highly recommended. 557/31, Office of this Paper.

LADY Assistant Dispenser (Hall) desires post; whole or part time; experienced; good references; Brighton or near. 8 Prestonville Road, Brighton.

LADY Dispenser (Hall) requires post with Doctor or Chemist; London preferred. T. Davies, 19 Terrapin Road, Balham.

MANAGER, Qualified, with first-class long experience; soon after Christmas. Chambers, 15 Robert Road, Birmingham, 20.

MANCHESTER or Salford.—Qualified (M.P.S.) gent. (age 36) desires managerial post; expert Dispenser, Counter, Window-dresser and Prescriber; accustomed to managing; original apprenticeship with Ph.C. and ex-examiner; conscientious and capable; free in 1 month. 556/24, Office of this Paper.

M.P.S. J.C.Q.O., P.S.M.C., F.I.O. (33), TALL, requires situation as Manager; excellent references; long experience in and around London. 557/17, Office of this Paper.

PHARMACY Student (lady), with Part I and 1 year's practical training, desires experience in a Midland Pharmacy; free now; for any period. E. Fitch, Belmont, Tamworth, Staffs.

QUALIFIED, middle-aged, excellent testimonials; accurate Dispenser; energetic; small salary; London only; disengaged. Alex Wilson, 14 Percy Circus, W.C.1.

QUALIFIED, middle-aged, active; any position; moderate salary; permanency preferred; Brighton or Worthing districts. H., Chatsworth, Steyne, Worthing.

QUALIFIED (23), married; Counter, Dispensing, D. & P.; anywhere; free after January 6. C. Ormston, 10 Cornhill, Ottery St. Mary, Devon.

QUALIFIED (25) seeks situation, London or suburbs; salary moderate; free owing to disposal of business. 557/28, Office of this Paper.

QUALIFIED (46); single; all-round experience; Locum, Manager, Dispenser; £4-£5 weekly for good- or middle-class retail management; trustworthy; good references; applicant has conscientious objections to "rubber goods" or "birth control" type business. 558/9, Office of this Paper.

QUALIFIED (28); first-class experience; tall, energetic worker; thoroughly reliable; as Manager or Assistant. 553/4, Office of this Paper.

QUALIFIED (43); permanency or locum; West End experience; reliable; good Salesman; teetotal; London preferred; disengaged December 23. Elliott, 81 Meon Road, Southsea.

WHOLESALE.

ESSENCES, COLOURS, ETC.—Experienced Flavour Chemist seeks firm, &c., who will appreciate introduction full range proved formulas; take sole control making and selling; home, export connections partly established; terms reasonable. 558/13, Office of this Paper.

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SCOTLAND.—An Efficient Sales Organisation, operating exclusively amongst Grocers, Chemists and Hardware Trades (Wholesale, Multiple and Co-operative Societies), desires one further good repeater; Glasgow office; own car; highest credentials; bank references. Address "Sales," Wm. Porteous & Co., Glasgow.

TRAVELLER, German, excellent connections and personal experience in India, Straits, Siam, China, wants situation or partnership in Surgical and/or Druggists' Sundries line. 558/14, Office of this Paper.

TRAVELLER, working Southern Counties, seeks one or two good commissions. P.C.B. 100/5, Office of this Paper.

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FOR SALE.—Two only W.T. Avery's "Watch Your Weight" Weighing (coin) Machines; perfect condition; sell at £15 each; delivered free. E. Featherston, 14 Scarle Road, Wembley.

NATIONAL Cash Register for sale in thorough working order; shows total takings; price reasonable. Write R. Matthews, 735 High Road, Leytonstone, E.11.

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A COMPLETE PHARMACY IN OAK.—Wall Fitting, Counter, Dispensing Screen, Window Enclosures, Wall Cases, £98; adjustable to any size shop. PHILIP JOSEPHS & SONS, LTD., 90/2 St. John Street, Clerkenwell, E.C.1 Telephone: Clerkenwell 2191. "Pharmacy Fitters for over a Century."

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